



**Mu'tah University**  
**College of the Graduate Studies**

**The Effect of Using Mind Mapping and Wiki Technique in  
Teaching Vocabulary of 6<sup>th</sup> graders' Achievement in Southern  
AL-Mazar Educational Directorate**

**Submitted by**  
**Nesreen Mohammad Al Nawaiseh**

**Supervised by:**  
**Prof. Dr: Zeid Al Bashaireh**

**Thesis submitted to college of graduate studies**  
**A requirement for master degree in English Language**  
**Teaching Methods, Curricula and Instruction department.**

**Mu'tah University, 2016**

## DEDICATION

## **Acknowledgment**

In the Name of Allah, the Most Merciful, the Most Compassionate

My deep thanks and gratitude are due to Allah, the Almighty, Who granted me knowledge and bestowed His everlasting mercies and bounties upon me during this long journey. Without His support and guidance, this work would not have been possible.

I would like to acknowledge the contribution of the following faithful and sincere persons who have made the completion of this study possible:

I owe a deep debt of gratitude to my supervisor Prof. Dr Zeid Al-Bashairh for his invaluable assistance and insightful guidance on every taken step of the study. No doubt, despite his work pressure, he worked tirelessly on reading various drafts, making useful suggestions and contributing constructive comments.

Also I like to thank all of my professors in my college of Educational Sciences, Curricula and Instructions department at Mu'tah university for their contribution to promote the scientific and educational character.

And a great thanks and great gratitude to my professors at the discussion committee who accepted the discussion of this study with enrichment comments and observation that enrich the study out to the fullest.

All appreciation to those kindness , patience and support who lit the candles that enlightened my way towards success.

**Nesreen Mohammad Al Nawaiseh**

<b>List Of Contents</b>	<b>Page</b>
<b>Content</b>	
Dedication	I
Acknowledgment	II
List of Contents	III
List of Tables	IV
Table of Appendices	V
Abstract in Arabic	VI
Abstract in English	VII
<b>Chapter one: Theoretical Background</b>	
1.1 Introduction	1
1.2 Problem of the study	3
1.3 Significance of the study	4
1.4 Purpose of the study	4
1.5 Questions of the study	4
1.6 Operational definition of terms	5
1.7 Limitation of the study	6
<b>Chapter Two: Theoretical framework and review of the related literature</b>	
2.1 Theoretical framework	7
2.2 Review of Literature	27
<b>Chapter Three: Design and Methodology</b>	
3.1 Population of the study	33
3.2 Sample of the study	33
3.3 The instruments of the study	34
3.4 Discrimination coefficient	38
3.5 Procedures of the study	39
3.6 Study Design	42
3.7 Study Approach	42
3.8 Variables of the study	43
3.9 Statistical Analyses	43
<b>Chapter Four: Finding , discussion and recommendation</b>	
4.1 Results of the study	44
4.2 Results and Discussion of the results	47
4.3 Recommendations	49
<b>References</b>	50
<b>Appendices</b>	55

### **List of tables**

<b>NO</b>	<b>Title</b>	<b>Page</b>
<b>1</b>	Sample distributions of the study	<b>34</b>
<b>2</b>	Table of specification for vocabulary achievement test	<b>37</b>
<b>3</b>	Difficulty and Discrimination for vocabulary achievement test	<b>38</b>
<b>4</b>	Means and standard deviation for students in pre-test for achievement vocabulary test	<b>39</b>
<b>5</b>	Means and standard deviation for the sample of the study due to the teaching methods	<b>44</b>
<b>6</b>	One way ANOVA and its significance for the differences between groups	<b>45</b>
<b>7</b>	Scheffe Test and its significance for the differences between groups	<b>45</b>
<b>8</b>	Means and standard deviation for the differences due to gender	<b>46</b>
<b>9</b>	Independent sample test	<b>46</b>
<b>10</b>	Means and standard deviation due to interaction between teaching methods and gender	<b>46</b>
<b>11</b>	Two Way ANCOVA for the differences between groups in vocabulary post achievement test	<b>47</b>

<b>List of Appendices</b>		
<b>NO</b>	<b>Title</b>	<b>Page</b>
<b>I</b>	Approval letters	<b>55</b>
<b>II</b>	Jury's Questionnaire	<b>57</b>
<b>III</b>	Content analysis for the module	<b>61</b>
<b>IV</b>	Sample of mind mapping lessons	<b>64</b>
<b>V</b>	Sample of Wiki technique lessons	<b>68</b>
<b>VI</b>	Instructional material	<b>72</b>
<b>VII</b>	Pre-Post achievement vocabulary test and Answer sheet	<b>76</b>
<b>VIII</b>	Wiki 's guide	<b>83</b>
<b>IX</b>	List of jury	<b>87</b>

2016

(4)

(6)

(180)

(  $\alpha \leq 0,05$  )

(  $\alpha \leq 0,05$  )

( )

(  $\alpha \leq 0,05$  )

## **ABSTRACT**

### **The Effect of Using Mind Mapping And Wiki Technique in Teaching Vocabulary of 6<sup>th</sup> graders' Achievement in Southern Al-Mazar Educational Directorate**

**Nesreen Mohammad Al Nawaiseh**

**Mu'tah University, 2016**

The study aimed to investigate the effect of using mind mapping and wiki technique in teaching vocabulary of 6<sup>th</sup> graders' achievement in Southern Al Mazar Educational Directorate.

The sample of the study consisted of 180 sixth grade students, distributed into six groups: four experimental groups , two taught by using wiki technique and two taught by using mind mapping , two control groups taught by using conventional method.

The instruments of the study consisted of achievement test and an instructional material organized based on Wiki technique and mind mapping. The validity of the instruments was ensured and the validity and reliability of the test were ensured.

The results showed that there were statistically significant differences at (  $\alpha \leq 0.05$  ) found due to gender in favor of female students. Also, it showed that there were statistically significant differences at (  $\alpha \leq 0.05$  ) found due to the teaching method in the sixth grade students achievement in favor of Wiki technique and mind mapping . It also revealed that there were no statistically significant differences at (  $\alpha \leq 0.05$  ) due to the interaction between the teaching method and gender.

In light of the results of the study, many recommendations were drawn; two of them are to train English teachers to use Wiki technique and mind mapping in their classroom to develop students achievement and encourage them for using e-learning within their classroom.



## **Chapter One**

### **Background of the study**

#### **1.1 Introduction:**

Vocabulary plays an important role in learning a foreign language. It is one element that links the four skills of speaking, listening, reading and writing all together. In order to communicate well in a foreign language, students should acquire an adequate number of words and should know how to use them accurately. Even though students realize the importance of vocabulary when learning language, most students learn vocabulary passively due to several factors. First, they consider the teacher's explanation for meaning or definition, pronunciation, spelling and grammatical functions boring. In this case scenario, language learners have nothing to do in a vocabulary learning section but to listen to their teacher. Second, students only think of vocabulary learning as knowing the primary meaning of new words. Learners of English have to deal with unfamiliar vocabulary during their language acquisition. In order to learn and retain new words, learners should participate in different task-based activities in their classroom whether it is a guessing task, a describing exercise or making conversation.

English language as a subject has a significant and special position among the other educational subjects at school, the ways and the strategies used for teaching this subject has also a great importance as they represent a main source to achieve the goals as teachers choose one or more method to assist in achieving the goals and increasing the effective cooperation and participation of the students in the classroom ( The Ministry of Education in Jordan,2009).

For EFL students in Jordan, the acquisition of English language is particularly challenging because of the pronounced linguistic differences between communication and language acquisition practices to improve delivery of EFL instruction in Jordan, a country in which English enjoys a somewhat ambiguous status in the public school system, higher education, and business and social interactions (The Ministry of Education in Jordan,2009) .

Educational institutions in Jordan try to solve the problems that face the students while learning English vocabulary and prevent them from acquiring English language fluently . So, there is a need for studies to offer solutions and strategies for this problem. Educational institutions, teachers, supervisors, and researchers are all interested in this problem and make a lot of effort to create efficient strategies to overcome it ( The Ministry of Education in Jordan, 2009).

(Saleh, 1997) argues that the success in mastering a language is determined by the size of the vocabulary one has learned and the learner needs not only to learn a lot of words, but also to remember them. To master all the language skills, vocabulary knowledge is important that have to be known by the students and the teachers of English should have a technique that makes the students interesting in learning vocabulary.

It is a well-known that online learning has a great role and helps in facilitating and stimulating teaching and learning English as a foreign language. Online learning provides major benefits to both students and teachers. The benefits include convenience, time and geographic flexibility. The internet makes resources more accessible at a low cost. Moreover, multimedia tools simulate real task environments which can motivate learners as well as facilitate learning. However, the adoption of technology in development, delivery, and administration is not a simple process which requires minor modification. Educators and educational institutions must be aware that it is a fundamental shift of philosophy, policy, and instruction (Wieland , Burton and Kato ,2006).

On the other hand, e-Learning is playing a significant role in education to improve students' skills and teach them new ways for managing their knowledge and information. Recent advances in information and communication technologies and new developments in instruction design results in creating personalized, engaging and manageable learning environments. Badrul Khan developed a framework for e-Learning environments that comprises eight dimensions: institutional, pedagogical, technological, interface design, evaluation, management, resource support, and ethical . E-Learning will largely occur in the context of blended learning. The current version of the e-Learning technique will focus on this aspect only and it will not address distance learning. However, it is recognized that e-Learning has an obvious role to play in widening access to higher education within the national and regional context. This will also benefit those engaging in lifelong learning and continuing professional development (Mahanta and Ahmad ,2012).

Wiki sites and blogs are the most important of the web 2.0 teaching techniques that are used to build a collective and participatory content employed in the teaching process applications (the E-Learning Steering Committee,2009).

There are three overlapping and cyclical phases in an e-learning strategy: preparation, implementation, integration, and maintenance (Dublin, 2004). In the process of developing this e-learning strategy the university must consider its mission and the impact e-learning will have on the organization. The

adoption of e-learning is commonly associated with stakeholder frustration and dissatisfaction with e-learning as a method; traceable to the failure to develop a complete and understandable e-learning strategy . When the e-learning strategy fits in with and supports the overall organizational plan it presents a vision everyone can connect with and support (Dublin, 2004).

An e-learning initiative brings change to the leadership structure, management systems, competencies, and culture of the organization (Dublin, 2004). in addition to transforming the way instruction and training is viewed. Importance has been placed on change management in view of the fact that no matter how motivating or thoughtful the e-learning plan, in order for successful implementation and integration to occur it must be supported within the organization by a united effort. The organization which takes the time to develop a comprehensive e-learning strategy will be doing more than producing training that utilizes technology. It will be enhancing learning opportunities for its constituents and improving the likelihood for success.

Teachers may use various techniques in teaching vocabulary like: mind mapping and wiki technique, they are visual organizers that promote vocabulary development. Using a graphic organizer, students think about concepts in several ways. They help students to develop definitions, synonyms, antonyms and a picture for a given vocabulary.

From this point, using the recent technological methods in which the student has a positive role in the learning process, and avoiding the traditional ones where the role of the student is a negative role that makes him or her only a receiver of information. So, using mind mapping and wiki technique that help students to overcome all the difficulties in memorizing and learning words and develop the level of 6<sup>th</sup> graders' in Al Mazar Educational Directorate and allow them to clarify their thoughts. So, this research will study and focus on using mind mapping and wiki technique in teaching and learning English vocabulary and there effect on developing the level of the 6<sup>th</sup> graders' achievement in acquiring English vocabulary.

## **1.2 Problem of the study**

In the age of globalization, the world of technology, information and internet, written ,spoken, listening and reading English become a critical demand for any individual who intends to follow up the vast change in our modern world. However, teaching and learning English is not an easy job for both teachers and learners. Moreover, the researcher believes that the problem of the present study springs from students' low achievement in vocabulary of English language achievement tests, lack of motivation and weak participation in class.

In addition to common observation of many teachers and specialists, this problem was documented through 6th graders' exam and consultation of 6th grade supervisors and teachers as well.

To the best of the researcher's knowledge, this study is the first of its kind to examine the effect of using wiki on improving the learner's achievement of English vocabulary as a foreign language.

Hence, the importance of using mind mapping and wiki technique on developing learners' own vocabulary achievement appears. These current techniques could help 6th graders transfer the learned words into daily life tasks such as emails to a friend, a short paragraph or a report. Also, wiki and mind mapping could assist 6th graders become more effective communicators through various aspects in the classroom.

### **1.3 Purpose of the study**

The purpose of the study is to investigate the effect of using mind mapping and wiki technique in teaching English vocabulary of 6<sup>th</sup> grade male and female students in Al Mazar Educational Directorate during the second semester in (2016) .

### **1.4 Questions of the study**

To achieve the purposes of the study ,the following research questions were formulated:

1. Are there any statistical significant differences at ( $\alpha \leq 0,05$ ) in students vocabulary achievement due to teaching methods ( Mind Mapping , Wiki technique and the conventional method )?
2. Are there any statistical significant differences at ( $\alpha \leq 0,05$ ) in students vocabulary achievement due to gender?
3. Is there any interaction between the technique and the gender?

### **1.5 Significance of the study**

Vocabulary is one of the most important aspects in mastering English, because the ability of the students to read or comprehend the subject is relatively determined by their vocabulary. In this case, the teacher must emphasize that vocabulary plays a key role not only in reading but also in speaking, writing and listening. On the other hand , this research may help to master all the language skills through practicing using new teaching method and technique that encourage students to learn and acquire vocabulary .Also, it comes as a response for the continuous calls from the Jordanian Ministry of Education and a response for the construction of English language using new

instructional methods and materials that offer the students various real experiences enhancing them for self-activity and foster their interests for learning and getting knowledge.

As to the researcher's best knowledge there were no related studies conducted in the area of using wiki technique and mind mapping in teaching English language, especially in teaching vocabulary .

So, the researcher wants to encourage and motivate students to use wiki and mind mapping to improve their English skills, Stimulate specialists' and supervisors' interests in conducting training courses for teachers to sustain their skills in using these current technique in their teaching.

Finally the researcher wants to encourage syllabus designers to modify, organize and enrich English language curricula with various instructions, techniques and activities for teaching based on technology tools; such as wiki.

## 1.6 Operational definition of the terms

**English vocabulary achievement:** measured by the total scores achieved by the student on the achievement test that was prepared by the researcher.

**Sixth graders:** male and female 6<sup>th</sup> graders who have studied English for six years and they are around (12) years old.

**Mind Mapping:** is a powerful graphic which provides a universal key to unlock the potential of the brain . It is a visual map of ideas, laid out in a radial format around a central thought and it involves a unique combination of imagery , color and visual- spatial arrangement which is proven to significantly improve recall when compared to conventional methods of note – taking and learning by rote (Buzan,1993).

In this study mind mapping was used as a technique for teaching English vocabulary for 6<sup>th</sup> grades` experimental group of the sample of the study and as defined by the researcher, mind map is a new method that is for brainstorming and enhancing students to learn by linking the various vocabulary together.

**Wiki:** a Web site that contained documentation about design patterns collaborative website that many people can work on or edit. It allows a group of people to freely create and edit web page content online resources for which content can be created collectively. Photographs and video recordings can also be embedded in a wiki( Chatfield, 2009) .

In this study, it is an educational site for the module three consists of a set of interlinked pages to allow the student to add, modify and control the content.

**Conventional method:** the most common method used in teaching English vocabulary to male and female 6<sup>th</sup> graders at the majority of Jordanian

public schools, and this method depends primarily on explaining and instructing and other ways and methods may be used with this method , using the teacher's Guide book.

### **1.7 Limitations of the study:**

1. This study is limited to 6<sup>th</sup> grader males and females in Southern Al Mazar Educational Directorate, during the second semester -2016.
2. The study also is limited to design a wiki site for module units (9 , 10 and 11) in Action Pack 6<sup>th</sup> .
3. It was determined to generalize the results of this study according to the validity and the reliability of the instructional material.
4. Vocabulary achievement test was prepared by the researcher and applied in this study.

## **Chapter Two**

### **Theoretical framework and related literature**

This chapter covers the theoretical framework and the related literature regarding E-learning, mind mapping and wiki technique.

#### **2.1 Theoretical framework**

This chapter is presented in two sections: the theoretical framework and related literature. The first section falls into four fundamental areas. The first area is concerned with vocabulary, the second area is concerned with E-learning and the benefits of it, the third area is concerned with wiki technique and the last area is concerned with mind mapping. Meanwhile, the second section sheds light on the related literature that is related to applying wiki and mind mapping in teaching and learning English as a foreign language.

##### **Definition of vocabulary**

Vocabulary is an important aspect in the learning process. It is a basic factor in learning English because it will be needed by students when they learn English skills as reading, writing, speaking, and listening. It is very important to define the term vocabulary due to its basic foundation in any language. The definition of vocabulary relates to various views about the nature and use made of vocabulary, in Oxford Learner's pocket dictionary (1991) vocabulary is defined as all the words that someone knows, learns or uses. Hornby (2000) in Oxford Advanced Learner's Dictionary of Current English states that vocabulary is all the words that someone knows or uses, the words that are typically used when talking about a particular subject or a list of words with the explanation of their meanings in a book for learning foreign language. The Oxford Dictionary (2002) defines vocabulary as the body of words used in a particular language or in a particular sphere. Merriam-Webster Online Dictionary (2010) has three definitions of vocabulary as follows :

- 1- a list or collection of words or of words and phrases usually alphabetically arranged and explained or defined.
- 2- a sum or stock of words employed by a language, group, individual, or work or in a field of knowledge.
- 3- a list or collection of terms or codes available for use.

From all the above definitions mentioned, it is clear that the concept of vocabulary as the most important part for learning any language. It is impossible for the learners to read, write, speak and listen to any foreign language without having enough knowledge of vocabulary.

Thus, the researcher defines vocabulary as a collection of words in the language, every word has its own meaning and is understood by others.

### **Vocabulary Learning and Its Importance**

English language, like any other language, has different skills that students should study, such as reading, speaking, listening and writing. In this study, the researcher focuses on vocabulary because of its importance to students. Harmer (1991) declares that If language structures make up the skeleton of language, then it is vocabulary that provides the vital organs and the flesh. Carter & McCarthy (1988) state that the study of vocabulary is at the heart of language teaching and learning, in terms of the organization of syllabuses.

Sedita (2005) indicates that vocabulary knowledge is related to academic success because learners who have large vocabulary can understand new ideas and concepts more quickly and deeply than learners with limited vocabulary. Nichols & Rupley (2004) emphasize the importance of vocabulary, stating that it is a key to reading comprehension, reading fluency, writing, and communication with others. Mastering vocabulary enables students to form sentences and communicate with others. Thus, It is impossible for the learners to read, write, listen and speak a foreign language without having enough knowledge of vocabulary.

Folse (2008) mentions that English language learners need a continuous knowledge of vocabulary in order to improve comprehension and production many sentences. He added that while a basic level of vocabulary will allow learners to communicate some ideas to a certain degree, better communication can be happened when learners have acquired more vocabulary.

From the above mentioned discussion on vocabulary learning and its importance, the researcher concludes the following:

1. Vocabulary is very important in mastering the language.
2. Vocabulary is necessary in comprehension.
3. Without vocabulary learners can not read, speak listen and write.
4. Vocabulary is beneficial for learners, as they have a chance to handle L2 in both receptive and productive skills more successfully.
5. Without vocabulary the message can not be conveyed.

### **Types of Vocabulary**

There are several classifications of vocabulary. It is essential to distinguish between these different types. The researcher is going to handle the types of vocabulary as discussed in different books.

#### **Receptive and productive**

Nation (2001) divided vocabulary according to its use into two types: receptive and productive / expressive vocabulary.



A. Receptive vocabulary means words that learners can recognize and comprehend in the context of reading and listening material.

B. Productive / Expressive vocabulary means words that learners can recall and use appropriately in speaking and writing to expressive themselves and to convey their messages.

### **Passive and Active**

Passive vocabulary knowledge involves receiving the form of a word while listening or reading and retrieving its meaning. Productive vocabulary knowledge, on the other hand, means to express a meaning through speaking or writing and produce the appropriate spoken or written word form .

Thus, passive vocabulary knowledge involves a process from form to meaning, it is made of all the vocabulary that an individual recognizes but rarely uses when speaking and writing and productive vocabulary knowledge involves a process from meaning to form or all the vocabulary that an individual is able to use when writing or speaking (Nation, 2001).

### **Content Words and Function Words**

Languages make an important distinction between two kinds of words: content words and function words. Nouns, verbs, adjectives, and adverbs are the content words. These words denote concepts such as objects, actions, attributes, and ideas that we can think about like children, anarchism, soar, and purple. Content words are sometimes called the open class words because we can and regularly do add new words to these classes. Other classes of words do not have clear lexical meanings or obvious concepts associated with them, including conjunctions such as and, or, and but; prepositions such as in and of; the articles the and a/an, and pronouns such as it. These kinds of words are called function words because they specify grammatical relations and have little or no semantic content. Function words are sometimes called closed class words. It is difficult to think of any conjunctions, prepositions, or pronouns that have recently entered the language. The small set of personal pronouns such as I, me, mine, he, she, and so on are part of this class (Fromkin, Rodman ,& Hyams , 2010).

### **Types of Testing vocabulary**

Testing vocabulary is a very important method to get feedback about students' understanding and achievement.

In fact, it is more efficient to use different ways of testing. Kitao,& Kitao, (1996) indicate that in evaluating vocabulary, it is useful to be able to test from various points of view: (1) knowledge of word meanings; (2) knowledge of word forms; and (3) knowledge of how to summarize meanings of unknown words from the context. Pavlu(2009) describes different techniques to test vocabulary, as follows:

**Multiple choice**

This is a question which consists of a so called stem and four alternatives from which only one is correct. The examinee has to choose the right answer. We can use it either for testing single words, words in sentences or in texts. For example : He accused me of ..... lies.

- a. speaking
- b. saying
- c. telling
- d. talking

**Cloze test**

Another way how vocabulary can be tested is cloze test. This type examines active vocabulary because students are not given any options, they just have a text with gaps.

**Word formation**

Students have to change the form of word so that it fits to a particular sentence.

They have to show that they understand the context and that they know various forms of a word.

**Matching**

Through matching, we normally test the meaning of words, usually words of the opposite meaning. Students do not produce any vocabulary, they only match given words.

There are also other possibilities than just matching words of opposite meaning. We can design a test where words and pictures are being matched.

**Odd one out**

Students have to determine which item does not belong among the others. The amount of items can be various. This kind of exercise is easy to prepare, however, the teacher must know which words students know so that they could find the odd one.

**Sentence completion**

Students are given incomplete sentences containing words that we need to test. Their task is to complete these sentences so that they make sense. For example: Finish the following sentences:

1. I feel depressed when...
2. I never have an appetite when...
3. It was a great relief when.

**Definitions**

The teacher gives students a list of definitions of words she needs to test. However, not every word can be easily defined and sometimes there can be more than one possible answer. Moreover, the definitions should be clear so

that students understand the definition and can come to the right answer. Simple example of a definition It is an animal which likes bananas. (monkey)

### **Translation**

Learners can be tested through translation quite well and it can test both meaning and form.

### **Writing**

This type of testing is productive, students have to show their word knowledge, so the test is valid but two teachers would not probably come to exactly the same result in scoring which means that such testing is not very reliable.

(Thornbury ,2002) suggests to set as accurate demands as possible to increase reliability and to give criteria according to which the teacher will correct the test. Such criteria are lexical density, lexical variety and lexical sophistication. Lexical density is content words which are the opposite of function words, these words carry the meaning, they are nouns, adjectives and verbs. Lexical variety measures how various the text is, usage of different words, structures.

### **Reading**

Through reading, we can test passive vocabulary mostly which is also useful for students as they learn to guess meaning of words from context, they will need this ability a lot in their future studies of English.

### **Oral testing**

To know a word also means to be able to pronounce it well.

### **Associations**

Students have to underline those words which belong to the key word: “Furniture : house, table, floor, window, curtain, bed, kitchen, chair” .

### **Placing**

Students underline those words which relate to, for example. movement: “think, run, keep, walk, jump, answer.”

### **Synonyms and antonyms**

Students have to write down words of the same meaning or the opposite of the word. “clever \_\_\_\_\_ (bright)

important \_\_\_\_\_ (significant)”

Students have to write down words of the opposite meaning:

“beautiful \_\_\_\_\_ (ugly)

happy \_\_\_\_\_ (sad)”.

### **Transformation**

Students have to rewrite a sentence but with the same meaning:

“Bob is very good at football.

He plays football \_\_\_\_\_”.

**Substitution**

Students have to rewrite the original sentence in the form which is indicated by the given words

“He is a clever boy. You \_\_\_\_\_

**Rearranging**

Students have to rearrange given words so that the sentence makes sense and is grammatically correct. Example: am/tall/as/she/as/is.

**E-learning**

E-learning includes all forms of electronically supported learning and teaching. The information and communication systems, whether networked learning or not, serve as specific media to implement the learning process . This often involves both out-of-classroom and in-classroom educational experiences via technology, even as advances continue in regard to devices and curriculum. E-learning is the computer and network-enabled transfer of skills and knowledge. E-learning applications and processes include Web-based learning, computer-based learning, virtual education opportunities and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM. It can be self-pace or instructor-led and includes media in the form of text, image, animation, streaming video and audio ( Alexander,2001).

**What is E-Learning**

E-learning is an education via the Internet, network, or standalone computer. E-learning is basically the network- enabled convey of skills and knowledge. E-learning refers to using electronic applications and processes to learn. E-learning applications and processes include Web-based learning, Computer-based learning, virtual classrooms and digital collaboration. EL is when content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD- ROM. E-learning was first called "Internet-Based training" then "Web-Based Training" Today you will still find these terms being used, along with variations of E-learning. EL is not only about training and instruction but also about learning that is tailored to individual. E-learning is learning which is enhanced, supported or assessed by the use of electronic media. E-learning may involve the use of new or established technology and/or the creation of new learning material; it may be deployed both locally and at a distance. On-campus programmers typically involve blended learning, where a combination of e-learning and conventional teaching techniques are used to facilitate student understanding and learning ( Alexander,2001).

### **The objectives of E-learning**

By integrating our e-learning resources with the departmental website and making them available as widely as possible we intend to open a window to our teaching activities in the same way as we publicize our research activities and aim to ensure that both are promoted on an equal footing (Alexander,2001).

### **These are the main objectives of E-learning**

1. Provide students with an on-line learning environment that meets their expectations regarding the use of electronic media for on-campus programs and to make more effective use of learning resources;
2. Enable students to learn effectively with the support of appropriate e-learning resources that meet their diverse learning needs in order to develop their self-motivation, self direction, and lifelong learning skills;
3. Improve access and the retention of students, support widening participation, and enhance student achievement;
4. Provide students with the opportunity to develop skills enabling them to work and participate in a technology-rich and connected society (Majidul, Devajit,2011).

### **There are six core aims of the e-learning programmed concern:**

- A) Practitioner confidence and skills
- B) Learner access and choice
- C) Flexible, customizable systems and tools
- D) Enabling, cost-effective technical infrastructures
- E) Enabling, responsive e-learning policies and processes
- F) Institutions using e-learning to widen participation, deliver flexible opportunities, support work-based learning ( Majidul, Devajit,2011).

### **Mistakes in application of E-learning:**

Lack of planning, the absence of good vision and rashness are the most important factors that lead to project failure .

There are some mistakes that must be avoided, since any of them can lead to the damage of E-learning project, which is unacceptable since the main victim of E-learning is the student. The main mistakes can be summarized as follows:(Christopher,2014)

1. Taking the decision of application of E-learning by the higher management with all sides that share this operation as dean, department president and educators themselves.
2. Taking the decision without preparing the workers of the educational foundation for the application of E-learning, without convincing them of its importance and necessity for the development of educational process, and without defining the roles of workers and training them on the new

- tools used. 3.The lack of clear and precise planning that contains project definition, goals, execution tools, application stages and budget needed for each stage, and determining committees which will be responsible for execution and maintenance of project.
4. Concentration of the goals on material return or on decreasing the burden on student, and ignoring students' knowledge and scientific outcome.
  5. Application of E-learning on all subjects taught in particular semester. There are some subjects for whom E-learning process is unsuitable and application of typical learning is more effective, especially mathematical subjects that use symbols and need solving problems.
  6. Inserting new additional technologies without usage of the existing technologies in a proper way.
  - 7.Ensuring the best and most expensive software and equipment without finishing the training process. This means that the advantage taken from the software and equipment will not be at maximum level.
  - 8.The lack of using assessment from time to time to make sure that the goals are achieved properly.

### **Disadvantages and defects of E-learning**

The E-learning process depends on Internet, so to understand the disadvantages of E-learning, we have to realize that Internet is a communication tool and it's an open system that contains information from any source. Any person can be owner of Internet site on which he can publish any kind of information correct or incorrect.

So since Internet is an open system, it can provide useful information such as researches, on the other hand it can provide other harmful information too. The institutions that depend on E-learning have to be aware that all information on that open system will be available for the students.

The main disadvantages of E-learning are:

1. Since the Internet contains correct and other incorrect information, so the quality of the knowledge can be affected.
2. Lack of resources and technologies and infrastructure for communication.
- 3.Lack of teachers with high Internet experience.
4. Students can easily reach any research or information with less effort than manually, which makes the students to get used to laziness.
5. Opposition of society to E-learning thought.
6. Lack of security ( Richard,2003).

### **Educational applications : E-learning 2.0**

Web 2.0 tools are so relatively new to education that educators have yet to find new designs for teaching and learning that fully exploit such tools. Most uses to date have been within the framework of a teacher-controlled

model of instruction. For instance, teachers may add their own blog to an online course, or encourage students to chat or work offline then post their work back in the “teaching” area.

They may use Illuminate to deliver a live lecture with slides, or a pod cast to catch an update from a visiting expert, or to transmit a recorded classroom lecture. Note that Web 2.0 tools can be used quite independently of an LMS ( Learning Management System) .Nevertheless, there are now an increasing number of examples of teaching and learning using Web 2.0 tools that exploit the learner’s capacity to access, create, and publish materials., wiki is one of web 2.0 tools, it is an “open” collective publication, allowing people to contribute or create a body of information ( Chen,Kidd,2009)

## **Wiki Technique**

### **History of Wiki**

The first wiki precursor dates back to 1945 when Vannervar Bush published an article explaining his vision of a microfilm hypertext system that he called the "mex mex" (a blend of the words memory and extender)” (Vannervar,1945) . Another precursor of the wiki concept emerged in 1972 when researchers at Carnegie- Mellon University created the ZOG (an early hypertext system) multi-user database. The ZOG( Zionist Occupied Government) interface consisted of text- only frames; each frame contained a title, a description, a line with standard ZOG commands and a set of hypertext links leading to other text- only frames (Abrams, 1998).

In 1981, two members of the ZOG team at Carnegie Mellon Spun off a company and developed an improved version of ZOG called Knowledge Management System (KMS), a collaborative tool based on direct manipulation, allowing users to modify the contents of frames, freely intermixing text, graphics and images, all of which could be linked to other frames (Abrams, 1998).

In 1985, the ZOG system was the model for Janet Walker's Document Examiner; which was created for the operation manuals of symbolic computers. Document Examiner was then used at the model for the Note Cards System, released that same year box Xerox Note Cards, a hypertext system, featured scrolling windows for each note card combined with a separate browser and navigator window. Note Cards inspired Bill Atkinson's Wildcards , later called Hyper Card. In the late 1980s, Ward Cunningham wrote a Hyper Card stack that was the impetus to the wiki idea. After obtaining access to Hyper card, Kent Beck joined Apple computers and introduced Hyper Card to Ward Cunningham. Cunningham used Hyper Card to make a stack with three kinds of cards: cards for ideas, cards for people who hold ideas and cards for projects where people share ideas. Next,

Cunningham made a single card with three fields (name, description and links) that served all three purposes.

Only through the hypertext capabilities of the World Wide Web was Cunningham's first wiki made possible. In 1990, Tim Berners- Lee of CERN (Centre European Pour La Recherche Nucleaire) built the first hypertext server (info.cern.ch). The next year, Berners- Lee posted a short summary of this project on the alt.

hypertext newsgroup, marking the debut of the Web as a publicly available service in the Internet. Enough momentum generated over the next few years that organizations were forming to capture the power of World Wide Web.

In 1994, Ward Cunningham started developing the Wiki Wiki Web as a supplement to the Portland Pattern Repository, a Web site that contained documentation about design patterns. On May 1, 1995, Cunningham sent an "Invitation to the Patterns List" to a number of programmers; which caused an increase in participation. This site earned immediate popularity within the pattern community. Immediately, clones of the Wiki Wiki Web software were developed. Cunningham himself wrote a version of a wiki that could host its own source code, called Wiki Base Programmers soon started several other wiki to build knowledge base about programming topics. Popularity continued to grow for collaborating on, discussing and documenting software. Being used only by specialist, these early software-focused wiki failed to attract widespread public attention (Cunningham, 2008).

Until 2001 with the introduction to the general public by the success of Wikipedia, wiki were virtually unknown outside the restricted circle of computer programmers. 15 Since then, wiki has developed by incorporating many of the features used on other web sites and blogs; including support for various wiki mark up styles, editing of pages with a graphical user interface (GUI) editor and HTML (hypertext markup language), optional use of external editors, support for plug-ins and custom extensions, use of RSS feeds, integrated e-mail discussion, precise access control and spam protection (Deans, 2009).

Today, wiki may be the face of collaboration on the internet, but their most effective uses are in closed environments like schools, businesses and communities where organizations can put them to use for complex tasks. Monitoring schoolwork, keeping track of memos or creating plans for when to join up for a bike ride are all ways through which wiki has become more powerful and more useful (Chatfield, 2009).



From the researcher view's in this study wiki In this study, it is an educational site for the review units consists of a set of interlinked pages to allow the student to add, modify and control the content.

### **Types of Wiki**

Wiki is available through a wide variety of services and open-source software tools.( West and West ,2008) stated that wiki falls into three categories ( free wiki services, free-based services and self- hosted wiki)

#### **Free Wiki Services**

Free wiki services are available across a wiki provider without cost like Google Docs (<http://docs.google.com>) or Wet paint ([www.wetpaint.com](http://www.wetpaint.com)). Wiki pages are accessed and hosted from the wiki service's Web servers as well as demand no local software determination. Furthermore, they are usually easy to set up and manage. Most free services determine the number of members that can add and modify the wiki or the number of pages that can be designed. But, most of them display a logical amount of storage capacity for starting with small wiki projects. In addition, many free wiki services have the option of alerting leader group whenever a page on the wiki has to be modified. Most importantly, free services trend to have identified administrative abilities especially when it comes to passwords, security and managing access to individual wiki folders.

#### **Free-Based Wiki Services**

Free- based wiki is also hosted and accessed from the wiki service's Web servers. They present extended merits which depend on the sort of subscription the user selects. Merits of them may involve more advanced management abilities, more storage or added security. Moreover, these services typically allow an unlimited number of members or pages. Most subscription services permit the leader to add groups and to administrate users' access to specific pages in the wiki. Similar to the free wiki services, free-based wiki is very easy to use, demand minimal technical experiences and do not require software instruction. On the downside, subscription services aspire to a monthly or annual cost, and the user must maintain subscription up to date to remain administrative controls.

#### **Self-Hosted Wiki**

Wiki software can also be set up directly on a personal or a campus-control server space. A diversity of open-source wiki software is available for download from the internet; for instance, Media wiki ([www .media wiki .org/wiki/Media wiki](http://www.media wiki .org/wiki/Media wiki)) and T wiki ([www.twiki.org](http://www.twiki.org)). Self-hosting a wiki permits for maximum control over access and security and supplies much more storage space than is available across free or freebased services. However, this method can have precise demerits for online educators..

## **Characteristics of Wiki**

Wiki has a unique set of characteristics which can make it more suited for use as a virtual learning environment.

### **Security:**

It has been asserted that teachers must be aware of the challenges that the read-write Web displays. They must take care of privacy and safety issues to guarantee that learners have the best chance learning experience (Educator's Guide, 2008 in West and West). Learners may be worried that outsiders will add accidentally spam or graffiti comments into their wiki projects.

### **Logins and Passwords:**

(West and West ,2008)explained that all wiki supports some limits over access through the use of login and password protection. Free wiki services support the most basic access control and self-hosted services display the greatest ability to facilitate access. Besides, free-based services present different levels of password protection. This depends on the wiki service and the level of service that the user purchase.

### **Editing features:**

Although wiki displays a variety of advantages that let users modify the wiki s` page layout, control and formatting, they are not Microsoft Word. The basic word processing merits such as fonts, bullets and simple tables are available in most wiki and are easy to use. Most wiki lets students edit pages in HTML mode through a view source option despite the real strength of the wiki appears in the fact that users do not have to know HTML code to be able to edit and format a wiki page (West and West, 2008).

### **Communication:**

Wiki provides some types of edited communication between it's members. This can appear in the form of e-mail links to members, discussion threads and page comments. The capability to communicate with other members across the wiki can assist the success of an online wiki project. For example, Wet Paint displays threaded discussions for every page in the wiki. Thus, students have the ability to join arguments and discussions to a specific wiki page or subject. Moreover, Wet Paint lets participants to create new threads on any added wiki page. Self-hosted wiki such as Media wiki support a discussion space that is usually obtainable to wiki participants and visitors. Furthermore, other wiki services enable users to comment on pages but they do not display threaded discussions. In brief, if teachers want to combine wiki activities into their online course, they will need to survey accurately at edited communications before selecting the wiki service (West and West, 2008).

### **Applying Wiki in Educational Institutions**

One of the reasons why wiki is applied more frequently in educational institutions is the ease of use and the low cost. It is easy to learn how to use wiki, free to use it as an open source application and does not take a lot of time to create new contents. Therefore, the focus remains on the contents and not on the software itself. All participants are equal in the sense that any user can add or edit the contents at any time. It provides a visible state of the changes in dealing with a certain topic for students and teachers. Nevertheless, there is the possibility of creating different levels of access both to content in general and to content editing functions. Sometimes, these different levels of access are required when the educators feel the need for a more controlled environment ( Holzinger, 2008).

The main purpose of online courses is to increase learners' experience that guide them to purposeful learning. Today, educators and teachers believe that meaningful learning can not be achieved merely across passive activities like reading and listening. According to the constructivist theory, purposeful learning is accomplished through effective learning, social interaction and the construction of knowledge (West and West, 2008). Furthermore, Constructivist theory explains that purposeful learning relies on a relevant context. Contextual learning and teaching is implemented in schools and higher educational movements ( West and West, 2008).

According to contextual teaching and learning principles, the main role of the teachers is not to support learning. Their basic role is to supply the context in which learning can happen. Indeed, contextual teaching and learning shares learners in significant activities that assist them relate their academic learning purposes to real-life situations (West and West, 2008). In parallel with the significant of constructivist theory in teaching and learning process, they recommended that wiki projects support the collaborative and cooperative tools that sustain contextual teaching and learning. Teachers support context to the main wiki environment through:

- 1.Putting a goal for the wiki project.
- 2.Identifying and categorized the wiki projects' learning purposes.
- 3.Creating a relevant context and situation that sustain the accomplishment of the goals.
- 4.Organizing learners for work in the new environment.
5. Encouraging a collaborative and cooperative process in which effective and social learning can occur.

All in all, a wiki hosts an environment for collaborative and cooperative knowledge development since it enables all participants to develop knowledge actively and collaboratively. Hence, the researcher believes that when learners

are supported with a significant situation and learning tools, they attain higher levels of learning.

### **Guidelines for Working with Wiki**

Guidelines for working with wiki can further enhance the effective usage of wiki. (Holzinger ,2008) addressed the following guidelines for working with wiki:

**First of all**, an emphasis has to be put on the main characteristics of collaborative work. It is essential to emphasize from the beginning that there will not be individual ownership of contributions and that the students need to be edited by every other participant. To avoid contributions of lesser quality, it is advisable to announce that even though it will not be possible to take individual credit for single contributions. The students' participation will still be mentioned in order to give feedback on the development process of the content and in order to assess whether the students are eligible to earn credit points towards their exam.

**Secondly**, students are taught that the wiki concept depends on the constant changes made to it's content. Moreover, the students should be encouraged to contribute to a wiki page even though the presentation might not be the final version yet. A wiki enables the successive development of content.

**Thirdly**, the participants are requested to review their peers' contribution critically in order to improve the content quality. This means that in consideration of spelling mistakes, formal mistakes and mistakes as regards content. Students are invited to read through and edit their peers' presentations.

(West and West ,2008) suggested some instructions for teachers to prepare themselves for their roles in creating wiki projects. These instructions are:

1. Teachers should be familiar and comfortable with the read-write Web. They must glance at what other instructors are doing with blogs, web quest and other interactive Web technology.
2. Teachers should have a pure idea of what their selected wiki environment can and can not do.
3. Wiki projects must include 'sandbox' to allow students insert texts, images, hyperlinks and charts.
4. Teachers must survey their wiki in various browsers and computers and be familiar with how different learners might select the wiki environment.
5. Teachers must be ready for their learners' questions and inquires. They should link to the wiki's help pages like how do I log into the wiki?, what happens if I edit the page without logging in?, can I invite others to

- participate on the wiki?, how do I save the prior text if I make any mistakes? and so forth.
6. Finally, teachers should prepare the framework of the project then let students version control and administration. Teachers' role is merely to instruct their learners as well as to facilitate wiki working.
- (West and West, 2008) also indicated that the following strategies are suggestions to help students' preparation for wiki work:
- 1- It is important to join wiki concepts and expectations into pre-course communications as well as the online course syllabus. Thus, students will see a relevance relationship between the educational value and goals of the wiki project to overall course purposes.
  - 2- Teachers must integrate questions related to Web abilities, collaboration and teams' work if they want their students to complete a pre-course survey. By this way, instructors can be able to determine learners who may need assistance and to identify their position into teams.
  - 3- It is necessary to design a sandbox or practice page in the wiki site in which learners can add and edit knowledge. On the other hand, this will present sample wiki that teachers designed for their students preparation.
  - 4- Instructors must also help their learners answer the question "what is a wiki?" before the project starts.
  - 5- Teachers will be able to engage wiki projects from the beginning semester with their recent learners through creating links to display projects on the Web.

### **Learner Motivation across Wiki**

Wiki is only successful under the condition that users actively participate. Several studies have dealt with the phenomenon of lurking which means that most users of wiki do not actively contribute contents but instead only passively consume it (Nielsen, 2006).

Especially for the use of wiki in an educational setting the participation of students are important and therefore need to be motivated. That is why incentives need to create in order to increase the willingness to work with the wiki and enforce a more active participation (Holzinger, 2008).

Besides incentives that increase extrinsic motivation, it is even more important to address the learners' intrinsic motivation by pointing out the usefulness of the wiki as preparation materials for the final exam

Furthermore, collaboration of students is mostly a black box process of instructors. In most cases, the instructor is not able to review the actual collaboration process but only output in form of a final product. Wiki technology reveals this collaboration process and makes it visible to the educator. It's version control features enable to track and assess the

knowledge development of the students as well as monitor the content development in order to determine problem areas for students.

In addition, the educator can use the wiki to present course information and have the basics compiled by the students in them. By this way, the focus of the traditional classroom sessions can shift to more topical issues. Concluding, it is important that the educator is supporting the concept of wiki. Educators can only motivate the students to work with wiki if they believe in the benefits of the wiki concept themselves ( Holzinger, 2008).

Pete Babb of InfoWorld (2007 in West and West, 2008) advised the following ten commandments for wiki principles:

1. Students should not confuse their opinion with gospel truth.
2. Students should not appeal to personal attacks.
3. Students should stick to the subject at hand.
4. Students should site their references.
5. Students should punctuate and capitalize.
6. Students should acknowledge their mistakes.
7. Students should not use sock puppets or be anonymous.
8. Students should not feed the trolls.
9. Finally ,students should resize their image.

### **What will be assessed**

In considering what to assess, teachers should survey the outputs determine during initial planning. How will each of outputs be assessed? What certain criteria will be used to measure these outputs? Will the focus of the assessment be on the wiki deliverable alone? or Will it involve an assessment of each group's contribution?( (Julie ,Sue and Barbara,2015)

Rubrics are scoring tools that record the criteria towards which the work will be measured. They can be helpful in conducting outputs based assessment and illustrating assessment criteria. Moreover, teachers and group members can create rubrics. Creating rubrics early in a project help teams to concentrate their tasks, assess their own progress and aspire to higher levels of quality.

### **Who will be assessed**

Teachers must observe who will be measured. Will they measure individual members or the team as a whole?. In researchers' experience, it is essential to have a balance of assessment measures that can support feedback to both the individual and the team. For instance, drafts and final wiki deliverables can be evaluated at the team level while contributions, specific roles and collaboration outputs can be measured at both the individual and team levels (Julie ,Sue and Barbara,2015).

### **Who will participate in the assessment**

Collaborative activities like wiki projects are best measured across collaboration( West and West, 2008). This means that teachers should not be the only contributor in the assessment of a collaborative project. Individual members or the team as a whole can also participate in the assessment process.

In this context, West and West (2008) stated that groups can complete the same rubrics used by teachers in order to display a considered viewpoint.

Also, peer assessment can be constructed to measure how well team members achieved their roles and confronted the team anticipations. Moreover, self-assessment present chances for reflection; and they may take the form of narratives, rubrics or questionnaires. The researcher thinks that the triangulation of these assessments display both the teachers and their team members a complete and valid measurement of the project.

### **Mind Mapping**

#### **History of Mind Mapping**

It was firstly developed by Tony Buzan , a mathematician, psychologist and brain researcher, as a special technique for taking notes as briefly as possible whilst being interesting to the eye as possible. Since then, mind mapping turned out to be usable in many different ways other than just simple note taking. Mind maps have, among other things, been used in education, but despite their usefulness are surprisingly rarely used in mathematics. The method of mind mapping takes into account that the two halves of the human brain are performing different tasks. While the left side is mainly responsible for logic, words, arithmetic, linearity, sequences, analysis, lists, the right side of the brain mainly performs tasks like multidimensionality, imagination, emotion, color, rhythm, shapes, geometry, synthesis. Mind mapping uses both sides of the brain (Buzan, 1976), letting them work together and thus increases productivity and memory retention. This is accomplished by representing logical structures using an artistic spatial image that the individual create

#### **The concept of Mind Mapping**

Mind Mapping is a creative note-taking method, which eases us to remember much information. The best mind mapping is colorful and used much pictures and symbols; usually like an art (Melanie,2013).

(Buzan,2007) states that mind mapping is powerful graphic technique, which provides a universal key to unlock the potential of brain .

Mind mapping imitates the thinking process, namely possible us to move from one topic to another topic back and forth.

Recording the information through symbols, pictures, emotional meaning and colors, exactly the same like our brain process it . A pattern which at least consists of picture, symbol, and color that will not just help the students to

understand the vocabulary knowledge but also makes the students feel good, enjoyable and attract their brain which at last lead them to have interest in mastery vocabulary knowledge ( Buzan, 1993).

### **Definition of Mind Mapping**

(Buzan, 1993) states that a mind mapping is a powerful graphic which provides a universal key to unlock the potential of the brain. It is visual map of ideas, laid out in a radial format around a central thought and it involves a unique combination of imagery, color and visual-spatial arrangement which is proven to significantly improve recall when compared to conventional methods of note-taking and learning by rote. It needs imagination and association to activate our brain in remembering something.

From the researcher's view in this study mind mapping was used for teaching English vocabulary for 6<sup>th</sup> grades' experimental group of the sample of the study and as defined by the researcher, mind map is a new method that is for brainstorming and enhancing students to learn by linking the various vocabulary together.

### **The advantages of using mind mapping Technique**

De Porter and Hernackin ( in Abdurhman,2008) describe that there are some advantages of using mind mapping , there are as follows;

#### **1. Flexible**

Explaining something can be easy without confusing in add the material based on the mind mapping. We can put the label and category of something based on our own opinion anywhere in the mind mapping.

#### **2. Concentrate on the topic**

Getting the subtopics what we talk about with focus on the main ideas easily. Keep focus on the key word can help us to make it simple and it doesn't waste the time.

#### **3. Increasing comprehension**

Using mind mapping can make easy in understanding the material. Mind mapping is a simple think pattern , so it doesn't make us confuse to understand what we have learned and easy to remember the material.

#### **4. Enjoyable**

Imagination and creativity are unlimited in using mind mapping, so it can be funny to learn. By using pictures and colors, it makes the brain enjoy and excited in thinking something what we want about the material.

### **Parts of Mind Mapping**

There are some parts of mind mapping (windura,2008) namely.



### **(1). Central Image**

It has to describe the main idea of a mind mapping and put it on the centre of the paper. It is for activate the student's right brain, strengthen the student's memory.

### **(2). Key Word**

A key word is a word that can lead a sentence or event . Identifying a familiar word in one's own language or another language that sounds like the new word and using only one key word per line. It is as an argue to remember a lot of words for the student.

### **(3). Basic Ordering Ideas**

Basic ordering ideas are branches that collect sort information and it connects to the central topic that radiate out from the centre. Making basic ordering ideas which can direct our mind to make mind mapping and it needs creativity that encourage the students to understand the material. It is thick and thinner at the ends. It can be seen as headings for your topic and spread anywhere , but don't become steep.

### **(4). Branches**

Branches should be curvy and in the same length as the words, or pictures above it. These branches can be seen as sub headings. It is thinner branches and containing details.

### **(5). Color**

Color is a very good memory sign and it involves the right brain in learning for long term memory. Colors encourage creativity and help in memorization. Adding plenty of colors via branches , map background and image will add life to your mind map. It makes easier to comprehend and remember.

### **(6). Picture**

In mind mapping which can change or strengthen a key word that has been written before.

### **The Criteria of Making Mind Mapping**

Based on what (Buzan, 2007) states that the mind mapping uses colors and pictures to help constructing your imagination with your style in making mind mapping. Words or Pictures which are in the curvy lines or branches will help the student's memory to make association.

Furthermore, (Buzan ,2007) explains the steps below in how to make mind mapping, they are presented below:

1. Take a piece of white paper and it is in a landscape position.
2. Start by drawing a colored image in the centre of the paper and write the key word with capital letters.

3. Choose a color and draw the main themes of mind mapping on the thick branches radiating out from the central image.
4. Add other main themes branches a round the map.
5. Make thick and colorful branches spanning out from your mind map.
6. Write basic ideas about the key word and still use the capital letters.
7. Add an image to all the main branches to represent each key theme and also use image to visualize every important key word on your map.
8. Let your mind mapping be as imaginative as possible.

### **The role of teacher and learner in mind mapping**

(Jim, Yue, Miki, Maria and Maria,2005) implied that the teacher provides the students with a practice topic they are quite familiar with including a concept mind mapping that relates to that topic.

The role of the students is to create their own individual maps first. This independent reflection step is crucial; it elicits the personal understanding of each student.

Teachers may use brain storming in order to enhance the student's role in applying the concept of mind mapping technique, and so students engaged effectively not only in understanding the content of a mind map, but also they can create their own mind maps.

To effectively involve students in the classroom, students should be provided with mechanisms that enable them to know what is a mind map and how to create it which is the role of the teacher.

### **Uses of mind mapping in education**

Some of the most important uses mind mapping may have in education, are listed below (Hirschfeld and Glemar, 1999).

#### **1. A mind mapping helps to organize information.**

The hierarchical structure of a mind map conforms to the general assumption that the cognitive representation of knowledge is hierarchically structured . Mathematical knowledge may thus be organized in a mind map according to this knowledge's mental representation. A clear and concise overview of the connectedness of mathematical objects around a topic is enabled. Moreover, this is supported by the use of colors and pictures.

#### **2. A mind mapping can be used as a memory aid**

Each mind map has a unique appearance and a strong visual appeal. Thus information may be memorized and recalled faster, the learning process is speeded up and information becomes long living.

#### **3. A mind mapping can be of help to repetition and summary.**

At the end of a teaching unit the subject matter of the treated topic can be repeated and structured by composing a mind map; this mind map then serves as a good memorials summary.

#### **4. A mind mapping may summarize the ideas of several students.**

A mind mapping may grow as the common task of an entire class: The teacher might write the topic in the middle of the chalkboard and ask the students what main ideas they connect with it. For each idea the teacher draws a main branch of the mind map. Further on, students are asked to tell all other ideas they link to these main ones. Due to the open structure of a mind map, each single contribution can be integrated. The complete mind mapping should be redrawn by each student in his or her own personal style.

#### **5. A mind mapping helps meaningfully connect new information with given knowledge.**

New information can be integrated into an existing mind mapping and related to previously learned concepts. Such an activity with students has to be initialized by the teacher, who has the overview of already created mind mapping and of how new concepts fit to old topic

#### **A mind mapping can be used in educational assessment and described two main purposes :**

1. Formative evaluation of teaching and teaching materials .
2. Using mind mapping as part of achievement tests , then who concludes that concept provides a theoretically powerful and psychological sound tool (Kommers ,2004).

#### **Methodological issues in mind mapping as assessment**

Ozdemir ( 2005) believes that concept maps can be typically used as an evaluation method before and after teaching .mind mapping can be used as an assessment tool in education and it provides the faculty of interesting and effective ways to assess learning by students in all academic areas .( Ruiz – Primo ,2000 )assume researchers use the term assessment to reflect the belief that reaching judgment about individuals' achievement , in a domain requires an integration of several pieces of information , therefore, mind mapping as an assessment tool is characterized by :

1. A task that invites a student to provide evidence bearing on his or her knowledge structure in a domain .
2. A format for the students' response .
3. A scoring system by which the students' mind mapping can be accurately and consistently evaluated .

## **2.2 Review of Literature**

Research addressed mind mapping and wiki technique and their effect on achievement in many academic domains regarding the various school topics, following, some of the studies that addressed mind mapping and wiki technique effect on students' achievement in various topics.

**Firstly, studies that addressed the effect of using mind mapping on student's achievement.**

Chularu and De Backer ( 2004 ) investigated the effectiveness of concept mapping used as a learning method with students in English as a Second Language classrooms. Seventy-nine ESL students participated in the study. Variables of interest were students' achievement when learning from English -language text. Students' reported use of self-regulation strategies (self monitoring and knowledge acquisition strategies), and students' self efficacy for learning from English -language text. A randomized pre -test– post-test control group design was employed.

The findings showed a statistically significant interaction of time, method of instruction, and level of English proficiency for self-monitoring, self-efficacy, and achievement. For all four outcome variables, the concept mapping group showed significantly greater gains from pre -test to post-test than the individual study group. The findings have implications for both practice and research.

Al – Saqqa (2006) investigated the effect of computer assisted semantic mapping and brainstorming techniques on Jordanian tenth grade student's reading comprehension and writing in English. The participants of the study consisted of 103 male and female 10<sup>th</sup> grade students whom randomly selected and assigned into the experimental and the control groups . Afterwards, the control group learned reading comprehension and writing in the traditional technique .

The researcher designed the instrument (an achievement test) and software which consisted of two programs (semantic and brainstorming) for the experimental groups. Exercises and thinking activities were designed to suit each technique( semantic mapping and brain storming) to help learners brainstorm ideas on different suggested topics.

The findings of this study indicated statistical significant differences in favor of the experimental groups attributed to the use of teaching techniques of semantic mapping and brainstorming assisted by computerized programs.

Reza (2007) investigated the effectiveness of concept mapping as a learning strategy on EFL student's self – regulation ( meta cognitive self – regulation, time and study environment, effort regulation, peer learning, and help seeking). Sixty university students participated in the study . They were randomly assigned to control and experimental groups, each including thirty students. They ere at the intermediate level of English proficiency and studying English either “Translation or Literature”. Their language proficiency was determined by the Michigan Test of English Language

Proficiency ( MTELP). The instrument to collect data on the student's self – regulation was the Motivated Strategies for Learning Questionnaire (MSLQ)

The findings revealed that students gained higher self – regulation in writing tasks as the result of the explicit instruction of the concept mapping strategy. The findings have implications for pedagogy as well as for research.

Al- Jarf (2009) conducted a study on two groups of Saudi freshman students enrolled in their first writing course in EFL, and found that there were no significant differences between both groups in their writing ability . Both groups were expected to the same in- class writing instruction. Since students have difficulty generating ideas in EFL, writing paragraphs with topics sentences and supporting details, a mind mapping software was used to help students brain-storm, generate ideas, relate main ideas and supporting details.

The mind mapping software uses lines, colors, arrows, branches to show connections between the ideas generated on the mind map. Every week the software was used to create mind mapping for the essays they had to write . Result showed that experimental students who used the mind mapping software , made higher gains in writing.

Omar (2013) investigated the effect of teaching vocabulary through semantic mapping on EFL learner's. The sample of the study consisted of 50 male students enrolled in two sections, which were randomly selected from four sections and were randomly assigned to both experimental and control groups. The experimental group studied the lexical items via semantic mapping , and the control group studied them in the traditional method.

A vocabulary pre-test was given to both groups at the beginning of the study to make sure that they were equivalent and homogenous. At the end of the experiment, the same test was given to the experimental and control groups to investigate the effect of semantic mapping strategy on EFL students' achievement of lexical items. The results revealed significant differences between the experimental and control groups in favor of the experimental group. The results of the study, based on statistical analysis, indicated that the experimental group outperformed the control group in vocabulary learning. It can be suggested that semantic mapping can be used as an efficient methodology for teaching vocabulary, a technique which is effective for EFL learners.

The result showed that most of the students agree that mind- mapping is able to advance them, improve their vocabulary, expand their ideas and increase their self confidence in learning.

Samhudi (2015) studied the use of mind- mapping in teaching vocabulary This study was aimed to describe the procedure of mind-mapping in teaching vocabulary and to know the improvement of student's vocabulary

mastery after teaching vocabulary through mind-mapping on Seventh grade students. The researcher test and questionnaire . The researcher as a teacher tried to apply mind- mapping in teaching vocabulary mastery students. The result of the test showed that mind – mapping improved student's vocabulary mastery.

**Secondly, studies that addressed the effect of using wiki in teaching English vocabulary on student's achievement.**

Kovacac (2007) evaluated the use of a wiki system to supplement the traditional learning activities within an English for Specific Purposes (ESP) academic course. The participants were undergraduate students enrolled the 2006-2007 academic year at Zagreb University on Croatia. One group of participants was first-year students who attended the course "English Language" (study1) and the other group of participants was second-year students who attended the course "Business English Language"(study 55 2). The participants in both groups were highly computer literate but had diverse levels of English language proficiency. Two similar course evaluation surveys were designed to collect data on various aspects of the use of the wiki in general and more specifically regarding the usefulness of a number of diverse activities incorporated in two ESP courses.

It can be concluded that the use of a wiki in ESP and ESL courses is a useful and an innovative way of enriching the learning environment of students with adequate ICT skills and access to the internet.

O'Shea et al. (2007) also discussed the following:1. how will students perceive the Wiki book process; 2. will students be more actively involved with the format of the content than in courses using a traditional textbook; and how will students; perceptions of the wiki text differ from their perceptions of traditional textbooks. The participants of the study were (260) students enrolled in an educational foundations course and they were responsible for writing their own textbook using the wiki books protocol at Old Dominion University. The researchers determined how students' perceptions of the wiki book differed from their perceptions of traditional textbooks through a survey. The results of this study indicated that students valued the wiki book process and were much more involved with their text than when using the traditional one.

Solvie, (2008) investigated the effectiveness of the wiki as an instruction and learning tool in reading methods instruction. The participants of this study were (18) pre-service teachers. The 2005 Kolb Learning Style Inventory, wiki scores, questionnaire and reflection document were used to collect the data. The results revealed benefits of using wiki as tools to support students' construction of knowledge. 52 Moreover, the study indicated the importance

of scaffolding students' wiki work in constructivist settings. The results of this study asserted that the use of the wiki increased understanding of the social nature of literacy, explored understanding of reading instructional methods for students with various learning style preference as well as supported students' ability to construct knowledge in the context of the reading method course

A further study was conducted by Kessler (2009) to report on student initiated attention to form within the collaborative construction of a wiki among pre- service non- native speaker (NNS) English teachers. The sample of this study composed of forty (NNS) pre-service teachers from a large Mexican University were observed over a period of a sixteen week semester in an online content-based course aimed at improving their language skills while studying about cultures of the English-speaking world. The main element of the course was a wiki that was collaboratively created, developed and revised throughout the course. The study explored the degree to which these NNS EFL teacher candidates attempt to correct their own and others' grammar errors in a long- term collaborative task. The study also addressed the level of accuracy these participants achieve and the attention they pay to grammar revision versus content revision.

Follow-up interviews with the participants provided insight into the perception of the importance of grammar in the context of collaborative technologies among these pre-service teachers.

Ling Two (2010) examined the predictive relationship between attitude toward Wiki and Wiki interaction in a single culture background classroom. The sample of the study consisted of (204) students from first-year English classes at Public Polytechnic University in Taiwan. Each student was required to finish two group Wiki English composition assignments with five other students. Each group assignment was to be finished in six weeks. Data were collected through surveys. The results suggested a medium to strong positive relationship between attitude toward Wiki and Wiki interaction in a Chinese ESL classroom. Also, effective strategies were suggested to improve the attitudes of students to enhance and maximize language learning in wiki learning environments. These included familiarizing oneself with the wiki process, understanding of the value of wiki in ESL, facilitating positive social relationships and giving sufficient time to build a wiki community. The study recommended to continue examining the process of wiki instructions for online collaboration from social and cultural aspects.

Muscara and Beercock (2010) also examined the wiki as a virtual home base for constructivist blended learning courses. The sample of this study consisted of (35) first year undergraduate students of Modern Languages formed(10) wiki groups to analyze key language areas (grammar,

pronunciation and new vocabulary) from their chosen film excerpts in Italy. The wiki tool in the Model open source learning management system (LMS) was utilized as both the group database management and project presentation tool.

The results of this study revealed that the wiki can act as central operations, a secure location the students will go back at any stage of a course or time of day assured of finding the latest version of an ongoing project. During the "learning English with Films" course, as the students gradually familiarized themselves with concept of the wiki work and the functionality of the main editing tools, the wiki itself proved to be a reliable and efficient study organizer and presenter.

### **Comment on the studies**

The mentioned studies have been conducted on different samples with different levels of academic achievement , they all agreed that mind mapping has it's effective effect on the achievement of EFL students and there is a significant differences between the experimental and control groups in favor of the experimental group. such as (Reza , 2007, Chularu and De Backer , 2004 , Al- Saqqa 2006 and Omar,2013).

and they all agreed that wiki technique has its effective role on the achievement of EFL students and there are significant differences between the experimental and control groups in favor of the experimental group, such as( Solvie, 2008, O'Shea et al,2007, Ling Two ,2010 , Muscara and Beercock, 2010 and Kovacic, 2007).

- 1.All the studies indicated that there is a strong relationship between wiki and its positive effect on the students attitude towards EFL..
- 2.According to the researcher's knowledge, all the previous studies did not deal with the effectiveness of using wiki on the English Language in the Arab countries.
- 3 All the previous studies dealt with the wiki as independent variable in teaching and learning English as a foreign language.

Hence, this study attempts to offer a contribution by which mind mapping and wiki technique are highlighted and elaborated to be a major elements of teaching the English vocabulary for Jordanian students and apply an electronic- learning according to wiki technique through internet in English language for 6<sup>th</sup> grade students .



## **Chapter Three**

### **Design and Methodology**

This chapter discusses the population, the sample, the instruments, and the validity and reliability, the instructional material , study Approach ,the variables of study, the procedures of study and the statistical analyses .

#### **3.1 Population of the study**

The population of the study consisted of all female and male Sixth graders in Southern Al- Mazar Educational Directorate, whom number was (1342) students: ( 642) male and (700 ) female students during the second semester in (2016) .

#### **3.2 Sample of the study**

The sample of the study consisted of (180) male and female, (87) male and (93)female from Sixth graders in Southern Al- Mazar Educational Directorate and that was selected purposefully from two schools in Al- Mazar Educational Directorate ( Al Taybeh primary school for boys and First Mu'tah primary school for girls), and each school has threes 6<sup>th</sup> grade sections. The researcher selected them purposefully , they contained an appropriate number of the sixth graders, they divided into three groups ,the first one was an experimental group on which the wiki technique was applied there number was (28)students, the second group also was an experimental on which mind map was applied , there number was (29) students and the third group was taught by the instructional method , there number was (30)students The second female sample consisted of Sixth graders in First Mu'tah primary school, there number was (93), they divided into three groups,

The first one was an experimental group on which wiki technique was applied there number was (31)students, the second group also was an experimental on which mind map was applied, there number was (31) students and the third group was taught by the conventional method , there number was (31)students. Table (1) shows the distribution of the study sample according to their variables.

**Table (1)**  
**Distribution of the study sample**

Group	gender		Total
	Males	Females	
Mind mapping	29	31	
Wiki technique	28	31	
Conventional method	30	31	
<b>Total</b>	<b>87</b>	<b>93</b>	<b>180</b>

### 3.3 The Instruments of the study

To achieve the purpose of the study which was the effect of using wiki and mind map techniques on teaching English vocabulary for 6<sup>th</sup> graders ,the researcher selected module three ( 9,10 and 11) from the action pack new edition for Sixth grade ( Sports & Activity, Transportation, Materials, Part of speech, Word root, Plural Nouns, Compound nouns and verb and Traditional craft) to the possibility of applying mind mapping and wiki techniques on this module, also the researcher analyzed the content of this module in order to fit the mind mapping and wiki technique, they were presented to a jury of experts of TEFL specialists, professors, supervisors, teachers of English language and specialist of educational technology.

#### **The instructional materials**

**1. Wiki Site:** creating wiki on wiki spaces went through the following steps:

1. Choosing a unit of study: the researcher chose to investigate the effect of using wiki technique on the module for 6<sup>th</sup> graders during the second semester.
2. Identifying the outcomes for the module: the outcomes have been identified about each unit which contained in teaching curriculum regarding to the general framework for public and private productions in English language for the primary level for the year 2015-2016.
3. Analyzing the learner's characteristics, their needs, level and skills.
4. Analyzing the content : after choosing the unit , identifying the outcomes,

The researcher analyzed the content for each unit and it was considered appropriate to suit the content with wiki technique and ensure the vocabulary that requires finding the relationships among themselves and develop different skills through various activities .

5. Collecting an educational media of photos, illustration pictures ,videos and demonstrating experiments that are designed to interact with the students and develop their skills
6. Preparing an educational material through the use of public and private outcomes for each unit , each lesson had a title, outcomes were expected achieved, included images, videos and demonstrating, there was a limited role for the researcher , she was only follower up, guidance , she put up points for discussion . She asked a comprehend question at the beginning of the lesson in order to revise the previous knowledge and find the relation among them, also the students and the teacher worked together to find an interaction environment during the lesson, at the end of the lesson the researcher gave students a chance for group discussion, worksheet for self learning and warmed them to the next lesson by introducing pictures, images or question.

After finishing the instructional materials, the researcher submitted the educational materials to a jury of experts of TEF specialists, professors, supervisors and teachers to modify, omit or add according to their experience.

7. Adding icons on the desktop as a user's guide to help students for any problem and explain how can students add or edit link, image and make proposals to develop the skill of self evaluation.
8. making a account on this site [www.wikispaces.com](http://www.wikispaces.com), which gives various issues for the users especially students through the educational program . it's freely site , the users can use it and invite more than 100 students.
9. Using and entering to this site [www.wikispaces.com](http://www.wikispaces.com) and making wiki for 6<sup>th</sup> grade determining the wiki's manager, determining the password and choosing educational wiki.
10. Creating an account for each student on the site and invite him or her to participate in the educational wiki.
11. The site was submitted through a jury of specialist , professors and supervisors to give their notes about the instructional materials and according to their notes, the researcher revised the necessary things according to their notes.

#### **The validity of wiki technique:**

After finishing the instructional materials by using wiki , the researcher submitted the educational materials to a jury of experts of TEF specialists in designing educational site and programs , professors, supervisors and teachers there number was (17) jury, the researcher took in their opinions, observations for the content, functions, educational outcomes, clarity, appropriate number for the instructional content and the safety when designing these site.

## **Mind Mapping**

Preparation the educational material has passed in many steps according to mind mapping :

1. Choosing the module of study: the researcher chose this module to investigate the effect of using mind mapping on the module for 6<sup>th</sup> graders during the second semester.,
2. Identifying the outcomes in the module: the outcomes have been identified about each unit which contained in teaching curriculum regarding to the general framework for public and private productions in English language for the primary level for the year 2015-2016.
3. Analyzing the content : after choosing the unit , identifying the outcomes, The researcher analyzed the content for each unit and it was considered appropriate to suit the content with mind mapping and ensure the vocabulary that require finding the relationships among themselves and develop different skills through various activities
4. Preparing mind mapping according to the seven steps, they mentioned previously in the theoretical framework. The lessons designed according to it , the researcher used the general outcomes to create maps, there number was ( 8) for the module , the unit contained : the title, outcomes, vocabulary, functions, number of the classes, resources , the procedures to achieve the goals ,giving examples for vocabulary, asking comprehension questions to relate the lessons and find the relationship among them .it started from the center of the map( General Concept) then to the sub- concept , at the end gave students test through evaluation questions. The researcher used the teacher's book which contained the mind mapping. There number was( 8), unit 9 has (3), unit 10 has ( 3) and unit 11 has ( 2) .

The lessons prepared according to this technique for the teacher as a guide to use them through applying the study. Before applying the study , the researcher gave the teachers a copy in order to evaluate, add or modify . Appendix(IV) shows the content analysis for the module.

**The validity of the instructional material through using mind mapping :** After finishing the instructional materials, the researcher submitted the educational materials to a jury of experts of TEF, there number was ( 17 ) specialists, professors, supervisors and teachers, the researcher took in their observations, opinions in adding or omitting some vocabulary according to their experience until mind maps were ready to use .

**Achievement pre- test and post- test :**

The researcher did achievement pre-test and post-test on English vocabulary for the Sixth graders on the module three (9,10 and11) in their action pack according to the following steps:

1. Defining the goal of the test : to measure the previous knowledge for the male and female students in the two experimental groups and the control group about implied vocabulary in the module before taught by pre-test and measure the post- knowledge acquired by students in the experimental groups studied using mind mapping and wiki technique.
2. Analyzing module's content that implied in the second semester from action pack for 6<sup>th</sup> grade copy(1) new edition 2015-2016 and determining the vocabulary which contained in each unit.
3. Test dimension: It has been committed for the first three levels of Bloom's Taxonomy of cognitive goals:

**Remember:** student's ability to revise the previous knowledge.

**Understand:** student's ability to recognize and understand what he or she learned.

**Apply:** student's ability to use what she or he learned in a new situation.

**Table (2)**

<b>Table of Specification for vocabulary achievement test</b>			
	<b>Remembering</b>	<b>Understanding</b>	<b>Applying</b>
Module	34%	33%	33%
weight			
No. O items	8	9	8

4. Preparing the specification schedule for the vocabulary test.
5. Writing the items of the test in form of multiple choice.
6. Test's validity : to verify the validity of the test was presented to a group of specialists , teachers and supervisors in order to verify the validity of the items and the validity of the educational material, the researcher collected their opinions and modified some items .
7. A pilot study was conducted on 30 students from other school to check for the reliability of the instrument, this sample was then excluded from the original sample. It has been re-testing again after two weeks in order to:
  1. Determine the suitable time for the test.

Through observing the time that it took to get out first student and the time it took out another student and then calculated the average time, the appropriate time has been found to answer the test is 45 minutes.

$$\text{Test's time} = \frac{\text{First student's time took out} + \text{last student's time took out}}{2}$$

$$30+60/2 = 45 \text{ minutes}$$

### 3.4 Discrimination and Difficulty coefficients:

The discrimination coefficient was calculated for the items of the test according to table(3) shows that.

**Table (3)**  
**Discrimination and Difficulty coefficients for the items of vocabulary achievement test**

item	Difficulty	Discrimination	item	Difficulty	Discrimination
1	0.65	0.224	14	0.73	0.331
2	0.69	0.275	15	0.69	0.344
3	0.72	0.387	16	0.72	0.309
4	0.69	0.281	17	0.74	0.331
5	0.72	0.266	18	0.74	0.362
6	0.67	0.382	19	0.72	0.313
7	0.70	0.342	20	0.72	0.292
8	0.72	0.351	21	0.71	0.370
9	0.69	0.278	22	0.72	0.379
10	0.74	0.319	23	0.70	0.420
11	0.73	0.302	24	0.68	0.331
12	0.72	0.286	25	0.70	0.225
13	0.70	0.222			

According to the table (3) the difficulty coefficients were ( 0.65) and (0.74), so all the items were acceptable. Also, the discrimination coefficients were ( 0.224) and (0.362) . It can be concluded that the test is highly consisted and valid to be used as a tool of the study .

#### Reliability of the test

To establish the reliability of the test in applying and re-applying, Cronbach Alpha was calculated between students' achievement, it has been found to test the reliability of the value of coefficient equal to ( 0.786 ), which is sufficient for the purpose of the study.

8. The instructions of the test : after selecting the items of the test, the researcher put the instructions in order to answer the test simply.

9. Applying the test: the test was applied on 9 / 3/ 2016 . After finishing from applying the test, with cooperating English teacher in the school where applying the study.
10. Correcting the test: Answer sheet was done to correct the test by the researcher. Zero mark was given for the wrong answer , and the right answer was given the mark for its question. The low mark was zero and the high mark was 25.

### **Equivalence of the groups**

To be sure for equivalence of the groups , applying test was done for achievement vocabulary test as pre-test for the three groups , control group and two experimental groups, the following diagram show mean rank and standard deviation.

**Table( 4 )**  
**Means and standard deviation for students in pre-test for achievement vocabulary test**

Group	Number of students	Mean	Standard deviation
Conventional method	59	14.81	4.58
First experimental group(Mind mapping)	60	19.30	3.80
Second experimental group( Wiki)	61	19.34	3.77

### **3.5 Procedures of the study**

The researcher followed the following steps in carrying out her study:

#### **1. The theoretical framework:**

- a) Identifying the problem of the study.
- b) Presenting the related literature and research that related to the problem.
- c) Writing the theoretical framework that related to the study.

#### **2.The practical side:**

It represents in the following steps:

##### **a) Before applying the study**

The researcher followed the following steps :

1. Chose the primary level especially 6<sup>th</sup> graders .
2. The researcher chose English language because it relates to her study and certificate.
3. The researcher analyzed the content to identify the basic vocabulary Items.

4. The researcher applied mind mapping and wiki technique and conventional method for this module and followed the previous seven steps that have been mentioned in the construction of instructional material.
5. The researcher made an account and guide for wiki technique on this site [www.wikispaces.com](http://www.wikispaces.com), which gave various issues for the users especially students through the educational program. It's a free site, the users could use it and invited more than 100 students, it had passed through steps:
  - A. Chose the module of study: the researcher chose to investigate the effect of using wiki technique on the module three for 6<sup>th</sup> graders during the second semester.
  - B. Identifying the outcomes in the module: the outcomes have been identified about module three (9, 10 and 11) which contained in teaching curriculum regarding to the general framework for public and private productions in English language for the primary level for the year 2015-2016.
  - C. Analyzing the learner's characteristics, their needs, level and skills.
  - D. Analyzing the content: after choosing the module, identifying the outcomes.

The researcher analyzed the content for this module and it was considered appropriate to suit the content with wiki technique and ensure the vocabulary that require finding the relationships among themselves and develop different skills through various activities.

- E. Collecting an educational media of photos, illustration pictures, videos and demonstrating experiments that were designed to interact with the students and developed their skills.
- F. Preparing an educational material through the use of public and private outcomes for this module, each unit had a title, outcomes were expected to be achieved, included images, videos and demonstrating, there was a limited role for the researcher, she was only follow up, guidance, she put up points for discussion. She asked a comprehend question at the beginning of the lesson in order to revise the previous knowledge and found the relation among them, also the students and the teacher worked together to find an interaction environment during the lesson, at the end of the lesson the researcher gave students a chance for group discussion, worksheet for self learning and warmed them to the next lesson by introducing pictures, images or question.

After finishing the instructional material, the researcher submitted the educational material to a jury of experts of TEF specialists, professors, supervisors and teachers to modify, omit or add according to their experience.



- G. Adding icons on the desktop as a user's guide to help students in any problem and explaining how could students add , edit, link, image and make proposals to develop the skill of self evaluation.
  - H. Using and entering to this site [www.wikispaces.com](http://www.wikispaces.com) and making wiki for 6<sup>th</sup> graders , determining the wiki's manager, determining the password and choosing educational wiki.
  - J. Constructing account for each student on this site and inviting him or her to participate in the educational wiki.
  - K. The site was submitted through a jury of specialist , professors and supervisors to give their notes about the instructional materials and according to their notes, the researcher revised the necessary things according to their notes.
  - L .Ensuring the availability of services and technical capabilities of all members of the experimental groups that studied wiki.
6. The sample of the study was assigned from 6<sup>th</sup> grader male and female students from AL-Taybeh primary school for boys and First Mu'tah primary school for girls at Southern Al- Mazar Educational Directorate for the academic year 2015-2016.
  7. A pilot study was conducted on 30 students from other school to check for the reliability of the instruments, this sample was then excluded from the original study.
  8. After having the permission of Mu'tah University and approval from Al Mazar Educational Directorate, the researcher got a list of EFL 6<sup>th</sup> graders teachers and the schools they teach in.
  9. From the sample three groups were assigned( two experimental groups and one control group ).
  10. The researcher met with the teachers from both school schools and she explained to the teachers how to use mind mapping and wiki technique, so they could use them with the two experimental groups. while the other control group used the conventional method and encouraged them to use and apply these techniques in their classes.
  11. After constructing the pre/post –test were consisted of 25 items on the vocabulary content in this module, the researcher submitted the items and the questions of the test to a jury of specialists.
  12. Identifying the assessment tools to be sure that achieved the purpose of the study , the evaluation process had passed through:
    - b) Pre- test: by applying the instruments of the study on the sample that selected before.
    - c) Post-test: by applying the instruments of the study on the sample that selected after .

## **2.During the study**

1. Constructing the pre/post test which were consisted of 25 items on the vocabulary achievement in the module to confirm the equivalence of the groups.
2. teaching the first experimental group by wiki technique, the effective role was for the student , who was the center in the educational process. The role of the teacher was a guider, instructor and asked the students to work effectively through group work. The second experimental group was taught by mind mapping that encouraged them to practice critical thinking, making images, discussion and related the ideas to the basic concept. The third group was taught by conventional method . The researcher started from (14/2/2016)to(16/3/2016), it took (24)classes , 5 classes every week .

## **3.After applying the study**

After applying the study, collecting data and analyzing these data, the researcher inferred the answer of the questions of the study, and drew the results and accordingly the researcher concluded the study with a discussion, recommendations.

## **3.6 Study Design**

The use of quasi-experimental approach to investigate the effect of using mind mapping and Wiki technique in measurement of vocabulary achievement test for 6<sup>th</sup> graders in Southern Al-Mazar Directorate of Education .

## **3.7 Study Approach**

It was used semi-experimental design for the three groups (two experimental groups and one control group) , pre-test and post-test as below:

<b>G1</b>	<b>O</b>	<b>X1</b>	<b>O</b>
<b>G2</b>	<b>O</b>	<b>X2</b>	<b>O</b>
<b>G3</b>	<b>O</b>	<b>X3</b>	<b>O</b>

G 1: First experimental group which studied by using mind mapping.

G 2:Second experimental group which studied by using wiki technique.

G 3: First experimental group which studied by Conventional method.

X 1: The treatment was used mind mapping.

X 2: The treatment was used wiki technique.

X 3: Conventional method was used.

O: Achievement test.

(01)= Applying the pre-test for male and female 6<sup>th</sup> grades achievement vocabulary test.

(O2)=Applying the post test for male and female 6<sup>th</sup> grades achievement vocabulary test.

(X1)= experimental treatment (wiki).

(X2)= experimental treatment( mind mapping).

### **3.8 Variables of the study**

The study included the following variables:

**1. Independent variable**, it has two levels:

- a) Firstly: the three teaching techniques( mind mapping, wiki and Conventional method ).
- b) Secondly : gender, it has two levels: ( male and female).

**2. Dependent variable**: achievement on vocabulary

### **3.9 Statistical Analyses**

In order to answer the questions of the study , the researcher used descriptive and analytical statistics (Spss.16) as the following:

1. descriptive Statistic Measures, to describe the characteristic of the sample of the study.
2. Means, standard deviation for responding the sample of the study on the achievement test according to each group from the groups of the study.
3. One way ANOVA for detecting the differences between groups and within groups.
4. Scheffee for Multiple Comparisons .
5. Two way Ancova to detect the interaction between gender and the teaching methods.
6. T. test for Independent samples to control the interferential variables and to measure the statistical differences in means between groups due to the variables of the study.
7. Alpha Cronbach technique to test the reliability of the test.
8. The significance level used was 0.05.
9. Etta Square for the effect size.

## **Chapter Four**

### **Results , discussion the results of the study and Recommendations**

This chapter presents the results , the discussion of the results of the study and recommendations.

The aim of the current study is to investigate the effect of using mind mapping and wiki technique on 6<sup>th</sup> graders' achievement on vocabulary in Southern Al-Mazar Educational Directorate. The following are the results of the study, according to the sequences of its questions, discuss the results and recommendations.

#### **4.1 Results of the study**

**Results related to the first question :”Are there any significant differences at ( $\alpha \leq 0.05$ ) on student’s vocabulary achievement due to teaching methods ( mind mapping, wiki technique and conventional method?”**

To answer this question, the researcher calculated means and standard deviations on students achievement test are due to teaching methods table (5) shows the results.

**Table(5)**  
**Means and standard deviation are due to teaching methods**

Method	N	Mean	Std. Deviation
Conventional method	59	14.81	4.58
Mind mapping	60	19.30	3.80
Wiki technique	61	19.34	3.77
Total	180	17.84	4.56

As table (5) above indicates, there were significant statistical differences between the mean scores of two experimental groups and the conventional group in favor of the first experimental group which studied by using mind mapping and their mean was (19.30), the second experimental group which studied by using wiki their mean was ( 19.34) and the control group which studied by conventional method their mean was (14,81).

To find the significant differences between the three groups, the researcher used One Way ANOVA, the results were shown in table (6)

**Table (6)**  
**One Way ANOVA results for the achievement test**

Source	Sum of Squares	Df	Mean Square	F-Test	Sig.
Between Groups	806.3	2	403.162	24.344	.000
Within Groups	2931.3	177	16.561		
Total	3737.6	179			

As shown in table (6) , there were significant differences at ( $\alpha \leq 0.05$ ) between the three groups in post-test, ( F-Test= 24.344), Scheffe test for Multiple Comparisons, so to investigate in favor of any of the groups that belonging the differences, table (7) shows the results of Scheffe test .

**Table (7)**  
**Scheffe results for post - achievement test**

Method	Method	Mean Difference (I-J)	Std. Error	Sig.
Convent	Mind	-4.48644 <sup>*</sup>	.74	.000
ional	Wiki	-4.53070 <sup>*</sup>	.74	.000
Mind	Con	4.48644 <sup>*</sup>	.74	.000
mapping	Wiki	-.04426-	.73	.998
Wiki	Con	4.53070 <sup>*</sup>	.74	.000
	Mind	.04426	.73	.998

As table (7) above for Scheffe test shows, there were significant differences in favor of mind mapping when compared with conventional method, also it shows there were significant differences in favor of wiki technique when compared with conventional method and it shows there weren't any significant differences between mind mapping and wiki technique

**Results related to the second question:” Are there any significant differences at ( $\alpha \leq 0.05$ ) on student’s vocabulary achievement due to gender?”**

To answer this question , means and standard deviation on male and female in the achievement test as shown in table (8)

**Table ( 8)**  
**Means and standard deviation in post vocabulary achievement test are due to gender**

Gender	Size	Mean	Std. Deviation
Male	87	17.08	4.41
Female	93	18.55	4.61
Total	180	17.84	4.56

A t-test was conducted to identify the differences in 6<sup>th</sup> grade students achievement scores on the vocabulary post-test that are attributed to the effect of gender between male (17.08) and female(18.6) in favor of female's achievement.

**Table(9)**  
**Independent Samples test**

t-test	Degree of freedom	Signiflication	Mean Difference
-2.192-	178	.030	-1.47868-

As table (9) above indicates, the results of( t- independent test) there were statistical significant differences at ( $\alpha \leq 0.05$ ) between male and female achievement's test in favor of female.

**Results related to the third question” Is there any interaction between gender and teaching methods?”**

To answer this questions , the researcher calculated mean and standard deviation in vocabulary achievement test are due to interaction between teaching methods and gender , table (10) shows the results

**Table (10)**  
**Means and standard deviation are due to interaction between teaching methods and gender**

Gender	Techniques	Mean	Std. Deviation	N
Male	Con	15.10	4.56	28
	Mind	17.55	4.09	29
	Wiki	18.46	4.03	30
	Total	17.08	4.41	87
Female	Con	14.54	4.66	31
	Mind	20.93	2.67	31
	Wiki	20.19	3.36	31
	Total	18.55	4.61	93
Total	Con	14.81	4.58	59
	Mind	19.30	3.80	60
	Wiki	19.34	3.77	61
	Total	17.84	4.56	180

As it shows above, there were statistical significant differences in vocabulary achievement test are due to interaction between teaching methods and gender, the researcher used two way ANCOVA to control the pre-test , table (11) shows the results

**Table (11)**  
**Two Way ANCOVA and the effect size are due to the interaction between gender and teaching methods**

Source	Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3270.517	6	545.086	201.872	.000	.875
Pre-Test	2242.577	1	2242.577	830.535	0.000	0.828
Gender	17.458	1	17.458	6.466	0.012	0.036
Tech	383.678	2	191.839	71.047	0.000	0.451
Gender*Tech	16.059	2	8.029	2.974	0.054	0.033
Error	467.128	173	2.700			
Total	3737.644	179				

As shown in table (11), there weren't any statistical significant differences at ( $0.05 \geq \alpha$ ) in pre-test are due to the interaction between gender and teaching methods( mind mapping, wiki technique and conventional method).

## 4.2 Discussion of the results

**Discussion the results of question one” Are there any statistical significant differences at ( $\alpha < 0.05$ ) in students` vocabulary achievement due to teaching methods( mind mapping, wiki technique and conventional method?”**

The results showed that there were statistical significant differences at ( $\alpha \leq 0.05$ ) due to teaching methods on 6<sup>th</sup> graders in vocabulary achievement test, the means of students achievement who taught by using the conventional method was (14.81), students achievement who taught by using mind mapping was (19.3) and students achievement who taught by using wiki technique was a (19.34) . The effect size was ( 0.45) due to technique. also the results showed statistical significant differences in favor of mind mapping and wiki technique ,then conventional method. This result is due to the role of new teaching methods in attracting students and transferring the role of the

students from the receiver to the researcher, thinker, practice brain storming for generating the ideas, stimulating the learning process, storing and restoring the knowledge through these teaching methods and this means higher achievement. Also, it is due to using visual materials, tools and computers that help students to remember, practice learning and look for the various information easily through a viable links, videos, dictionary sounds, pictures and files by wiki technique, also students through mind mapping use papers or cartoon to draw their mind mapping as they want and use colors which make their maps more attractive in order to make the material is clear and understand the vocabulary discussion and combine previous learning with new learning.

This agreed with the results that mind mapping has its effect on the achievement of EFL students and there are statistical significant differences between the experimental and control groups in favor of the experimental group. such as Reza ( 2007), Chen(2008),Chularu and De Backer ( 2004 ), Al-Saqqa (2006 ). and this agreed with the finding results that wiki technique has its effect on the achievement of EFL students and there are a significant differences between the experimental and control groups in favor of the experimental group, such as Solvie( 2008), O'Shea et al (2007), Muscara and Beercock( 2010) and Kovacic ( 2007).

**Discussion the results of question two “ Are there any statistical significant differences at (  $\alpha \leq 0.05$ ) in students' vocabulary achievement due to gender?”.**

The results of t-test showed that there were statistical significant differences at ( $\alpha \leq 0.05$ ) between male and female on the achievement test in favor of females. This result may be attributed to females attitude toward the test , the spirit of competition among females more than males ,also it may be attributed to the females ability to concentrate and practice learning more than male.

On the other hand , females try to use various techniques in their classroom rather than male and they care for getting high marks.

That's agreed with Al Jarf ( 2009) there were statistical significant differences due to gender .

The results also disagreed with Golnush, Kayuan (2015), there were no significant differences between males and females due to gender .

**Discussion the result of question three” Is there an interaction between teaching methods and gender?”** there were no statistical significant differences at ( $0.05 \geq \alpha$ ) in controlling the pre-test are due to the interaction between gender (male, female) and teaching methods( mind mapping, wiki technique and conventional method).



This result is due to the effective way in teaching method and gender that developed students positive attitudes and reflected in their studying, thus have received the attention of both males and females and stir motivation to long term memory. This result agreed with Kessler(2010), Ling Two(2010) and Chuan Lin and Ching Yan(2011) there were no statistical significant differences due to interaction between technique and gender and there were positive relationship between technique and gender.

This result disagreed with Miyazo and Anderson (2010) there were statistical significant differences at ( $\alpha \leq 0.05$ ) due to teaching methods and gender.

### **4.3 Recommendations :**

In light of the results of the study ; the following recommendations are offered:

1. Applying mind mapping and wiki technique within the classroom in teaching English language
2. Encourage teachers, supervisors and schools to use various techniques in teaching the various skills in English language ( listening, speaking, reading and writing) .
3. Encourage teachers and curriculum designer in the Ministry of Education for using e-learning inside the classroom and training them how to create wiki on wiki spaces.
4. Having proved that wiki technology has positive impact on 6th graders EFL vocabulary, a follow-up study could be built on this research in order to find out whether Wiki technique has the same influence on other language skills (reading, writing and speaking) and other grades.

## References

- Abrams, M . (1998). **World Wide Web - Beyond the Basics**, Upper Saddle River, NJ: Prentice Hall. Available: [http://www.prenhall.com/books/esm\\_0139547851.html](http://www.prenhall.com/books/esm_0139547851.html). (Retrieved on 23<sup>rd</sup>, December, 2015).
- Alexander, S .(2001). **E learning developments and experiences**, *Education + Training* ,4/5( 43) 240-8.
- AL- Jarf, R . (2009) **Enhancing freshman students` writing skills with a mind mapping software**. The 5<sup>th</sup> International Scientific Conference, Bucharest: Romania.
- Al-Saqqa, S. (2006). **The effect of computer assisted semantic mapping and brainstorming on Jordanian upper basic stage student's reading comprehension and writing in English**. A Doctoral Dissertation. Amman Arab University for Graduate Studies, Amman.
- Bates, A. W. (2005). **Technology, E-learning and distance Education**. (2<sup>nd</sup>ed) : New York
- Buzan, T. (2007). **Buku Pintar Mind Map Untuk Anak: Agar Anak Mudah Menghafal dan Berkonsentrasi**. Jakarta. PT. Gramedia Pustaka Utama
- Buzan , T. (1976). **Use Both Sides of Your Brain**. New York: E. P. Dutton & Co.
- Buzan, T & Buzan , B . (1997). **Original English Language Version: Das Mind-Map-Buch The Mind Map Book** Lands berg am Lech:
- Carter , R . & McCarthy, M. (1988). **Vocabulary and Language Teaching**. Longman Group Uk London.
- Chatfield , T . B. (2009). **The Complete Guided to Wiki: How to Set up, Use and Benefit from Wiki for Teachers, Business Professionals, Families and Friends**. New York: Atlantic Publishing Group, Inc
- Chen, Y . (2008). **The Effect of Applying Wiki in an English as a Foreign Language (EFL) class in Taiwan** (A Published PhD Thesis, University of Central Florida) Summer Term,2008. Available: [etd.fcla.edu/CF/CFE0002227/Chen\\_Yu-ching\\_200808\\_PhD.pdf](http://etd.fcla.edu/CF/CFE0002227/Chen_Yu-ching_200808_PhD.pdf) (Retrieved on 2nd March, 2016).
- Chen, I. and Kidd, T. (2009). **Wired for Learning: An Educator's Guide to Web2.0**. New York: Information Age Publishing Inc.
- Christopher, P. (2014). "11 Tops e learning Design and Development Mistakes". *E-learning Industry Journal*,3(22) 62-77

- Chuan Lin, W. and Ching Yang, S. (2011). **Exploring Students' Perceptions of Integrating Wiki Technology and Peer Feedback into English Writing Course**. English Teaching: Practice and Critique 10/2. Available: <http://education.waikato.ac.nz/research/files/etpc/files/2011v10n2dial1.pdf> (Retrieved on 2<sup>nd</sup> March, 2016).
- Chularu, P. and De Backer, K. T. (2004) : The influence of concept mapping on achievement, self-regulation, and self-efficacy in students of English as a second language, **Contemporary Educational Psychology journal**, 29 (3) .
- Cunningham, W. (2008). **History of Wiki**. Portland University
- Deans, P. C. (2009). **Social Software and web2.0 Technology trends**. New York: ICI Global.
- DePorter, B. and Mike, H. (2008) . **Quantum Learning : Membiasakan Belajar Nyaman dan Menyenangkan**. Jakarta. Kaifa
- Devajit, M. and Majidul, A. (2012). **International Journal of Innovative Technology and Exploring Engineering**, 2(1): 2278-3075. E-Learning Objectives, Methodologies, Tools and its Limitation.
- Dublin, L. (2004). **Lessons on e-learning strategy development from the Cheshire cat. Learning Circuits. American Society for Training & Development**. (Retrieved October 30, 2005), from <http://www.learningcircuits.org/2004/sep2004/dublin.htm>
- Folse, K. S. (2008). Six vocabulary activities for the English language classroom. **English Teaching Forum**, 12(3) 46
- Fromkin, V. ; Rodman, R.; Hyams, N. (2010). **An Introduction to Language (9<sup>th</sup> ed)**. USA: wads worth engage learning.
- Golnush, E. Kayuan, M. (2015). The effect of making web blogs with respect to gender on Elementary Iranian EFL learner's vocabulary development. **Interaction Journal of Educational Investigations**, 2(1) 226-238
- Harmer, J. (1991) **The Practice of English Language Teaching**. New York: Longman.
- Hirschfeld, LA. Glemar, SA. (1999) . **Mapping the mind**. New York. Cambridge University Press.
- Holzinger, A. (2008). **HCI and Usability for Education and Work**. Austria: Springer.
- Hornby, A. S. (2000). **Oxford Advanced Learner's Dictionary of Current English**. (6<sup>th</sup> ed) Oxford University Press.

- Jim, V . Yue, Y, Miki, T, Maria, A. and Maria, A. (2005). **Using concept maps in science classroom**. National Science Teachers Association (NSTA).
- Kessler, G . (2009). **Student-initiated attention to form in wiki-based collaborative writing**. **Language Learning & Technology** 13/1 (February,2009). Available: <http://llt.msu.edu/vol13num1/kessler.pdf> (Retrieved on 26th, December, 2015).
- Kitao, S . K ; Kitao, K (1996). **Testing Vocabulary**. 3(73) 254-398
- Kommers , P . A. M . ( 2004 ) : **Cognitive Support For Learning** : Imagining The Unknown, Ios Press , England .
- Kovacic, A . (2007) . **Evaluating of Activities with a Wiki System in teaching English as a second Language**. **International Conference "ICT for Language**. Available: [www.leonardo-lets.net/ict/common/download/AndrejaKovacic.pdf](http://www.leonardo-lets.net/ict/common/download/AndrejaKovacic.pdf) (Retrieved on 3<sup>rd</sup>, October, 2015).
- Leuf , B. and Cunningham. **The Wiki Way: Quick Collaboration on the Web**, Addison-Wesley: Boston, 2001, p. 15. <https://net.educause.edu/ir/library/pdf/ELI7004.pdf> **7 things you should know about Wiki** . (Retrieved on 22, December ,2015)
- Ling Two , H . (2010). **A Predictive Study of Wiki Interaction: Can Attitude toward Wiki Predict Wiki Interaction in High-Context Cultures Groups? Journal of Educational Technology Development and Exchange** 3/1. Available: [www.sicet.org/journals/jetde/ jetde10/5-Twu.pdf](http://www.sicet.org/journals/jetde/jetde10/5-Twu.pdf) (Retrieved on 15<sup>th</sup> November, 2015)
- Longman Dictionary of Contemporary English (1995)**. (3<sup>rd</sup> ed)Language Group ltd.
- Mahanta, D . and Ahmad, M.(2012) E- Learning objectives, methodologies, tools and its limitation . **International Journal of Innovative Technology and Exploring Engineering (IJITEE)**, 2(1) 2278-3075.
- Merriam-Webster. Online definition by Merriam- Webster . <http://www.merriam-webster.com/dictionary/online> . ( Retrieved on 22, December,2015).
- Melanie, P. (2013). **How to Use Mind** . University of Adelaide.Australia
- Miyazoe , T . and Anderson , T . (2010). Learning outcomes and students' perceptions of online writing: simultaneous implementation of a forum, blog and wiki in EFL blended learning setting. **System Journal** 3(8)632-668.
- Muscara , M . and Beercock , S . (2010). The Wiki- a Virtual Home Base for Constructivist Blended Learning Courses. **Procedia Social and Behavioral Science** 2(2) 885-889

- Nation, I. S. P. (2001). **Learning Vocabulary in Another Language**. Cambridge University Press.
- Nichols, W. D, Rupley, W. H. (2004). Matching instructional design with vocabulary instruction. **Reading Horizons**, 45(1) 55-71
- Nielsen, J. (2006). **Participation Inequality: Encouraging More Users to Contribute**. Available: [http://www.useit.com/alertbox/participation\\_inequality.html](http://www.useit.com/alertbox/participation_inequality.html) (Retrieved on 4<sup>th</sup>, December, 2015).
- Omar, N. (2013). The effect of teaching vocabulary through semantic mapping on EFL learners. Islamic university, Jordan. **International Interdisciplinary Journal of Education**, 2,(7)723.
- O'Shea, P. et al (2007). New Levels of Student Participatory Learning: A Wiki Text for the Introductory Course in Education. **Journal of Interactive Online Learning** 6(3) 221-229
- Oxford Learner's Pocket Dictionary. (1991)**. Oxford University Press.
- Oxford Word Power Dictionary (2002)**. (10<sup>th</sup> Ed). Oxford University Press.
- Ozdemir, A. G. (2005) Analyzing concept maps as an assessment (Evaluation) tool in teaching Mathematics. **Journal Of Social Sciences** 1 (3).
- Pavlu, I (2009) **Testing Vocabulary**. Masaryk University brno.
- Reza, M. (2007). **The Effect of Explicit Teaching of Concept Mapping in Expository Writing on EFL Students' Self- Regulation**. (1<sup>st</sup> ed) Beirut: Dar Aljil.
- Richard, M. (2003). **Disadvantages of e-learning**. Department of Education and skills. E-learning strategy
- Ruiz-Primo, M. A. (2000). On The Use Of Concept Maps As An Assessment Tool In Science : What We Have Learned So Far, **Revista Electrónica De Investigación Educativa** 12 (1).
- Saleh, Y. (1997). **Methodology of TEFL in the Indonesian Context Book 1**. Palembang: University of Sriwijaya.
- Samhudi, D. (2015). **The use of mind mapping technique in teaching vocabulary**. portalgaruda. org /article. php? article 318227 & 6357.(Retrieved on 23<sup>rd</sup> October, 2015).
- Sedita, J. (2005). **Effective Vocabulary Instruction. Insights on Learning Disabilities**, 2 (1) 33-45.
- Sue, H, Julia, P, Barbara, M. (2015). **Action Pack 6( new edition)**, York Press, England.
- Solvie, P. (2008). Use of the Wiki: Encouraging pre-service teachers' construction of knowledge in reading methods course. **Journal of Literacy and Technology** 9(2)

- Hirschfeld , LA and Gelmar, SA . ( 1999) . **Mapping the mind**. New York, Cambridge University Press.
- The Ministry of Education in Jordan. (2009). **Educational Techniques Golden Rules for Classroom Management** . Amman .Jordan.
- The E-Learning Steering Committee .Ministry of Higher Education and Scientific Resarch .**National e-Learning Strategy for Higher Education (2007-2010)**
- Thornbury , S . (2002) **How to Teach Vocabulary**. Person education limited: England.
- West, J. and West , M . (2008).**Using Wiki for Online Collaboration**. (1st ed). United States of America: Jossey-Bass.
- Wieland, K, Kato, T. and Burton , D .(2006). Wiki as online collaboration tool: **An exploratory study in a Hybrid learning environment. ISBN 4(22)**.
- Windura, S. ( 2008). **Mind Map : Langkah Demi Langkah**. Jakarta: PT. Elex Media Komputindo
- Vannervar, B . (1945). As We May Think. **The Atlantic Magazine**. <http://www.theatlantic.com/magazine/archive/1945/07/as-we-may-think/303881/>. (Retrieved on 27, March, 2016)

**Appendix(I)**  
**Approval letters**





**Appendix(II)**  
**Jury questionnaire for wiki educational site**

Dear Prof/Dr.....  
Dear Educational Supervisor.....  
Dear Teacher.....

After Greeting,

The researcher constructed an experimental study titled “ The effect of using mind mapping and wiki techniques in teaching vocabulary on 6<sup>th</sup> graders’ achievement in Southern AL-Mazar Directorate of Education, complementing to get a master’s degree in curriculum and methods of teaching English. According to your knowledge and experience in the scientific and practical field. Please , Have a look on this educational programmed to evaluate the appendix and write an appropriate adjustment of the terms of drafting appropriate content , omission or modification to some questions.

Hopefully, looking at the site through log in , follow these steps:

1. [www.wikispaces.com](http://www.wikispaces.com)
2. sign in
3. Fill in the username and the password . dr.ana /dr1234
4. Select technical learning . it is study’s site

Please , fill in the following form for documentation:

Personal information:

Jury’s Name: .....

Academic Level: .....

Specialization:.....

Workplace:.....

**Questionnaire for evaluating an educational wiki site:**

<b>The field</b>	<b>Items</b>	<b>Agree</b>	<b>Notes</b>	<b>Disagree</b>	<b>Notes</b>
<b>The objectives</b>	It contains general objectives for measuring and evaluating				
	It contains behavioral objectives				
	The objectives are clear				
<b>The features of educational procedures</b>	It provides a task after studying every lesson				
	It contains video, pictures and links and explaining how do they work?				
	It contains a guide for the users for using wiki				
	The pages are organized and Ss can simply use them				
	It interacts students for participating				
<b>The content</b>	It suits the target group				
	organizing the content achieves the sequences of ideas				
	It relates to the objectives				
	It contains examples and activities.				
	It doesn't have mistakes				
	It divides the main topic into sub-topics				
	Content accuracy and scientific integrity				
	Using pictures, links and videos which relate to the content				
	The pages organized logically				
<b>The interactive classroom</b>	The links are correct				
	The icons are identically to what did they mean				
	The ability to copy and print the content				
	Students can upload and download easily				
	It makes the learner is the central of the educational process				
	It interacts students with the content, students with students				

	and students with teacher				
	the page contains a lot of information				
<b>The multimedia</b>	Providing the material with various media				
	Pictures suit the content				
	Using colors, pictures, video and links				
	Using colors to discriminate the main topics				
	Adding multimedia which simplify the vocabulary				
	The pictures are clear and interacts students				
	Video suits the content				
<b>Evaluation</b>	It contains questions after each lesson				
	It contains different level according to the easiest and the most difficult				
	It contains activities which relate to the content				

**Appendix( III )**  
**Content analysis for the module**

	Module: Three	
Unit	Language	Skills
(9) “we went the airport”	<p><b>Grammar:</b> phrasal verbs</p> <p><b>Vocabulary:</b> traveling, transportation, airport, mend a car, fix,</p> <p><b>Pronunciation:</b> <i>p</i> and <i>b</i>, <i>k</i> and <i>c</i> intonation</p> <p><b>Functions:</b> analyzing texts about transportation, expressing opinions about different types of how can people travel , making suggestions about given situations, making predictions about what happens when you travel by plane?</p> <p>Project: draw mind maps for what happens when you travel by plane, , word root and phrasal verbs</p>	<p><b>Reading:</b> a dialogue and short text about traveling by plane , an email, a text about types of traveling.</p> <p><b>Listening:</b> a report about traveling by plane</p> <p><b>Speaking:</b> discussing a visit to airport, talking about traveling and trip , practicing sentence intonation, replaying an interview, making an e-presentation about types of transportation;</p> <p><b>Writing:</b> an email about a what happen when you travel by plane students take care for using word stress, phrasal verb, suffix and prefix and plural nouns during writing.</p>
(10) “Could you Fly a kite?” (page 48)	<p><b>Grammar:</b> making suggestions, <i>shall/ past continuous</i></p> <p><b>Vocabulary:</b> Kite, Jogging, activity, hobby, make a model, weaving, knit, museum, use a computer, send an email and teddy bear</p> <p><b>Pronunciation:</b> intonation</p> <p><b>Functions:</b> giving information about an ideal sports, making suggestions about activity and sports , analyzing emails, , making suggestions for taking items on sports and activity, evaluating the correctness of sentences analyzing a description of different types of items</p> <p>Project: draw mind maps for the ideas part of speech ,sport &amp; Activity, materials/ Discussion on wiki for various activities</p>	<p><b>Reading:</b> a family conversation about traditional crafts, a text about the old and modern crafts</p> <p><b>Listening:</b> a description for pictures in a museum</p> <p><b>Speaking:</b> talking about hobby, discussing plans to visit the national museum in Amman, discussing what items to take on in their visit.</p> <p><b>Writing:</b> a short description of the old and modern objects, three paragraphs about a memorable in the national museum</p>
(11) “It is from the past” (56)	<p><b>Grammar:</b> is/are+ something made of</p> <p><b>Vocabulary:</b> wool, rug, embroidery ,weaving , airport, mend metal, spoon, fork , jar</p>	<p><b>Reading:</b> a dialogue and short text about setting the table , an email, a text about types of materials.</p> <p><b>Listening:</b> a dialogue about what’s made of?</p>

	<p><b>Pronunciation:</b> <i>n/m</i> , intonation</p> <p><b>Functions:</b> analyzing texts about kind of materials, expressing opinions about different types of how can people use materials , making suggestions about given situations.</p> <hr/> <p>Project: draw mind maps for things made of cotton/ metal/ plastic/ wood / glass? / download pictures and videos on wiki</p>	<p><b>Speaking:</b> discussing about pictures, talking about what do they need to set the table , practicing sentence intonation, replaying an interview, making an e-presentation about types of materials;</p> <p><b>Writing:</b> a poster about a what's made of?</p>
--	--	--

**Appendix(IV)**  
**Sample of mind mapping lessons**

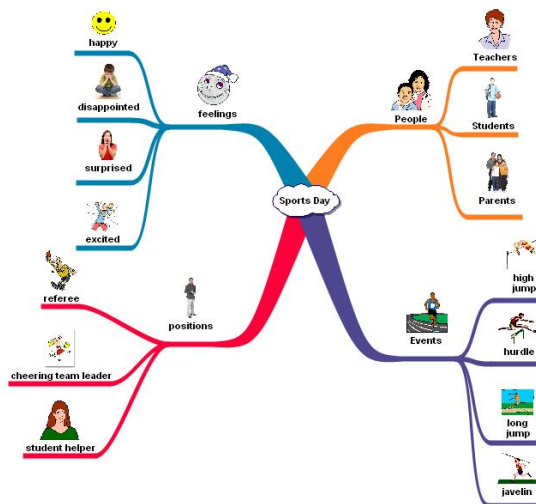


## 1. part of speech maps

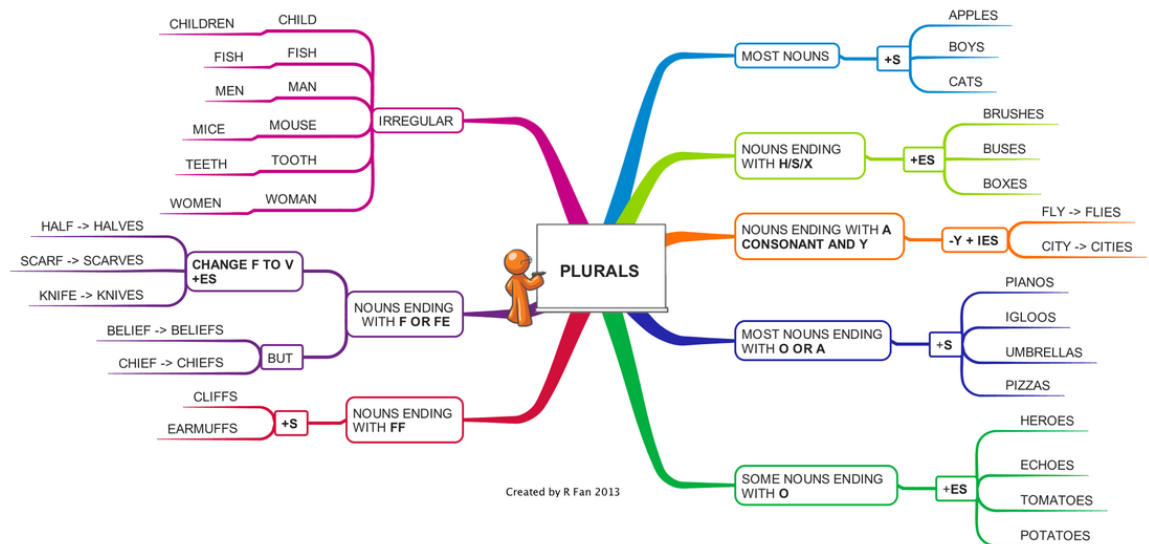


Lisa Willis  
Instructional Manual  
IT 570 Instructional Systems Design  
Submitted to: Dr. Blanche O'Bannon  
Fall 2006

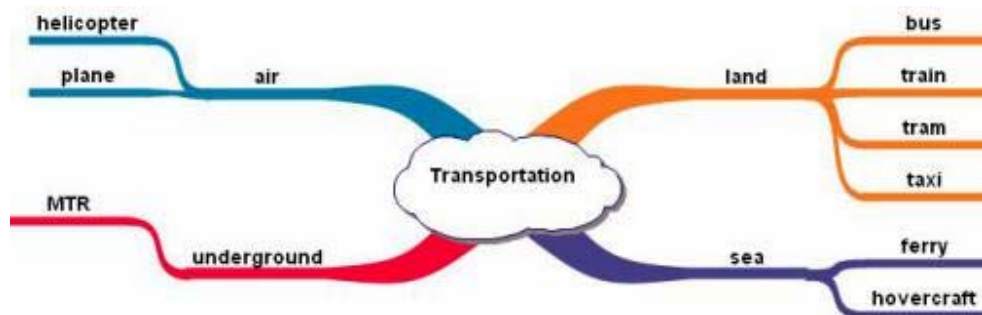
## 2.Sport maps



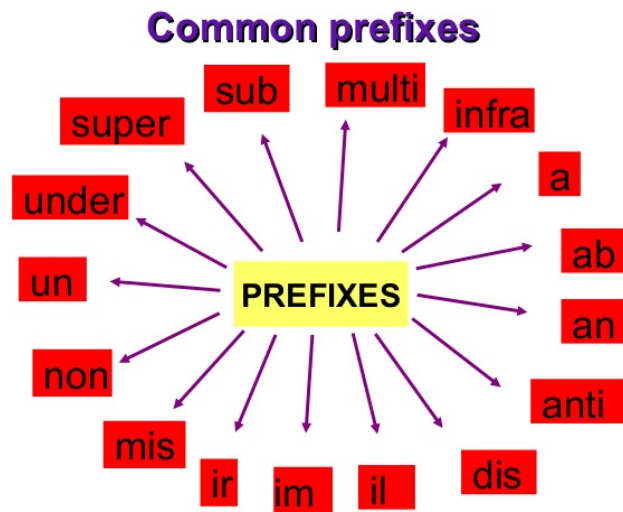
### 3. Singular & plural nouns maps



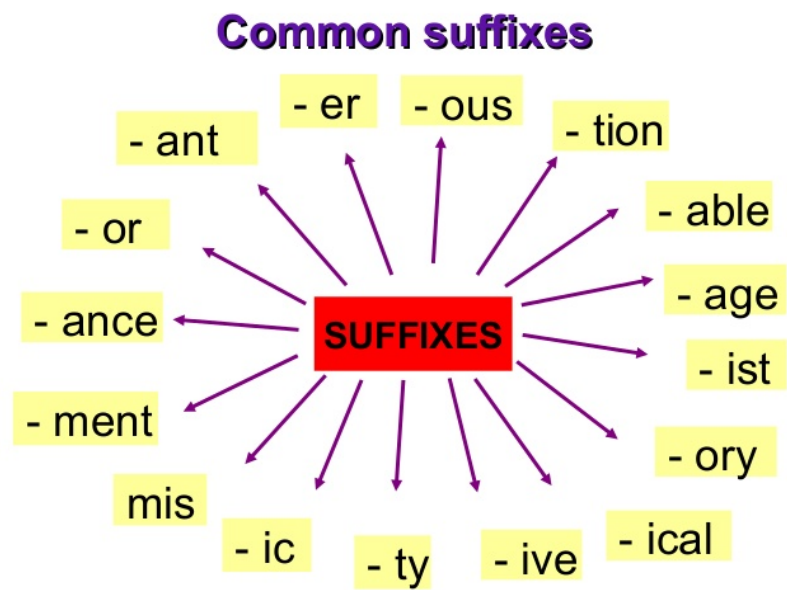
### 4. Transportation maps



## 5. Prefixes mind mapping



## 6. Suffixes mind mapping



**Appendix (V)**  
**Sample of wiki technique lessons**







**Appendix(VI)**  
**Teaching materials**



<b>Unit 9</b>	<b>Unit 10</b>	<b>Unit 11</b>
<b>Airport</b>	<b>Fly a kite</b>	<b>Museum</b>
<b>Journey</b>	<b>Sport</b>	<b>Objects</b>
<b>Passport</b>	<b>Activity</b>	<b>Clay</b>
<b>Check in</b>	<b>Use a computer</b>	<b>Metal</b>
<b>Take off</b>	<b>Mend</b>	<b>Wool</b>
<b>Land on</b>	<b>Engine</b>	<b>Coach</b>
<b>Wait for</b>	<b>Sewing machine</b>	<b>Guidebook</b>
<b>Ticket</b>	<b>Put up</b>	<b>Curator</b>
<b>Customs</b>	<b>Old</b>	<b>Spoon</b>
<b>Suitcase</b>	<b>Modern</b>	<b>Knife</b>
<b>Look for</b>	<b>Knit</b>	<b>Stone</b>
<b>Teddy bear</b>	<b>Hobby</b>	<b>Wood</b>
<b>Present</b>	<b>Traditional craft</b>	<b>Pot</b>
<b>Part of Speech</b>	<b>Embroider</b>	<b>Jug</b>
<b>Word root</b>	<b>Weaving</b>	<b>Jar</b>
<b>Make a model</b>	<b>Purse</b>	
<b>Big</b>	<b>Tiny</b>	
<b>Tidy up</b>	<b>Mosaic</b>	
<b>Transport</b>	<b>Sew</b>	
	<b>Sell</b>	
	<b>Dresses</b>	
	<b>Cushions</b>	

In this appendix, there is a list of all vocabulary that used in the module according to the alphabetical order :

Key use:

Noun

Verb

Adjective



<http://dictionary.reference.com/browse>

1. **Airport:** ( Air-port ) noun: An area designed to be opened to the outside air for taking off and landing on the plane. مطار
2. **Activity:** (ak-tiv-i-tee) noun: a specific action or state. نشاط
3. **Clay:** ( kley) noun: earth- mud. صلصال
4. **Carpet:** ( kahr-pit) noun: a heavy fabric, commonly of wool or nylon for covering floors. سجاد
5. **Castle:** ( kas-ul) noun: a large place providing security. قصر
6. **Chick in:** ( chek-in) verb: to make an inquiry into, search through. يتفحص او يتأكد من
7. **Craft:** ( kraft) noun: skill. حرفة
8. **Curator:** ( kyoo-r-uh-ter) noun: a person in charge of a museum. موظف المتحف
9. **Customs:** ( kuhs-tuh-m) noun: the section of an airport where baggage is checked in. الجوازات
10. **Embroidery:** ( em-broi-dree) noun: the act of working and designing by silk, cotton, wool.... نسيج
11. **Guide book:** noun: a book of direction, advice and information, especially for travelers and tourists. كتاب او مرشد سياحي
12. **Kite:** (kahyt) noun: a light frame covered with some thin material, to be flown in the wind at the end of a long string. طائره ورقية
13. **Knit:** ( nit) verb :to make fabric by inter looking loops of one or more yarns either by hand or by machine. يحيك
14. **Land on:** ( land on) phrasal verb : (to come to the land. يهبط
15. **Mend:** ( mend) verb: to make better or right. يصلح
16. **Metal:** ( met-l) noun: a mixture wholly or partly of such substances. معدن
17. **Modern:** (mod-ern) adjective: new. حديث
18. **Mosaic:** ( moh-zey-ik) noun: the process of producing such a picture or decoration. فسيفساء
19. **Museum:** ( myoo-zee-uhm) noun: a building or place where works of arts and valued objects are kept. متحف

- 20.Old:**(ohld) adjective:having lived or existed for a specified time.قديم
- 21.Pilot:**( pahy-luht) noun: a person who steers plane. طيار
- 22.Passenger:**(pas-uhn-jer) noun: traveler.مسافر
- 23.Rug:** ( ruhg) noun:a thick fabric for covering the floor.بساط
- 24.Search for:**(surch) phrasal verb: to look at something thing.يبحث عن
- 25.Sewing machine:**electric machine for making or sewing.الآلة للخياطة
- 26.Spoon:** noun: an object used for eating.ملعقة
- 27.Sport:**a particular form or act , especially for outside.رياضة
- 28.Stone:** a small pieces of rock.حجر صغير
- 29.Suitcase:**(soot- keys) noun; a luggage for carrying clothes.حقيرة
- 30.Take off:**( teyk-of) phrasal verb: to leave or lead away.يقلع
- 31.Ticket**( tik-it) noun:a written or printed paper that evidence the holder has paid for the service.تذكرة
- 32.Traditional:** ( truh-dish-uh-nl) adjective: related to the past.تقليدي
- 33.Transport:** ( trans-pohrt) noun:the act of transporting or conveying  
يتنقل.
- 34.Weave:** ( weev) verb: to form by interlacing threads or a

**Appendix(VII)**  
**Pre - post- vocabulary achievement test for 6<sup>th</sup> graders**  
**And Answer sheet**

**Vocabulary achievement test:**

**Sixth Grade / Second Semester / 2015-2016**

**First, General information:**

The instructions of the vocabulary achievement's test for 6<sup>th</sup> graders, second semester.

Name.....

Section ( ).

Date.../.../2016.

Time( 45 ).

**Secondly, Achievement's test instructions:**

1. This test is designed to measure students' acquisition of the vocabularies that included in the units 9, 10 and 11 in the second semester in English language for 6<sup>th</sup> graders.
2. Read carefully each item of the test.
3. The test consists of 25 different items of the multiple choice type.
4. Each item has four alternatives.
5. Write ( ✓ ) beside the correct answer on the answer sheet.
6. Be sure you have four different pages.
7. Try not to leave any item without an answer

**Read the following text, then answer the questions below:**

**Question (1)**

Yesterday, I could make a(1).....of a big building. I made a school. I was very ..... We always create modern things, they are very exciting. My mother is sewing a beautiful red wool jacket during night, she doesn't feel tired because she likes her job , she doesn't use sewing machine. My father is a mechanic, he(3) .....cars. My brother is a pilot, he goes to the(14)..... every day, before the plane takes off he asks passengers to be ready, until it lands on. In the evening, he watches sports game like: swimming and car racing. When he was a child, he used to fly a kite with our dad.

**1. The best complete for this sentence " I could make a model of a big building, I was very ....." is:**

- a. happy                      b. tired                      c. sad                      d. bored

**2. The underlined word "new" means :**

- a. Old                      b. modern                      c. rubbish                      d. happy

**3. The similar (synonym) meaning of the verb " mends" is :**

- a. throws                      b. arrives                      c. fixes                      d. watches

**4. One of these words isn't in the same context:**

- a. Wool                      b. plastic                      c. sew                      d. jacket

**5. The silent letter in the word " knit" is:**

- a. K                      b. n                      c. t                      d. k/t

**6. This is a .....**

- a. cutting machine                      b. suitcase  
c. sewing machine                      d. washing machine



**7. An example of an "adverb" is:**

- a. Yesterday                      b. she                      c. took off                      d. knit

**8. One of these words is an adjective:**

- a. take off                      b. tired                      c. when                      d. before

**9. The word that sounds different is :**

- a. To                      b. too                      c. two                      d. ten

**10. The correct plural form of “ child” is:**

- a. childhood                      b. children                      c. child                      d. chilly

**11. The correct usage of the pronouns in this sentence is :**

- A .She isn't tired, because he likes my job.  
b. She doesn't feel tired, because she likes her job  
c. She isn't tired, because you like his job.  
d. They aren't tired, because she likes her job.

**12. The antonym of the phrasal verb " takes off" is:**

- a. Come in                      b. waits for                      c. lands on                      d. lifts off

**13. The best complete for the missing letters in this word " ...h..ck are:**

- a .a/e                      b. c/e                      c. k/s                      d. e/t

**14. " He goes to the ..... every day, because he is a pilot" the best complete is:**

- a .airport                      b. university                      c. castle                      d. cave

**15. The correct re- alphabetical order for the following is:**

- a. Swimming, Flying a kite, Car racing and Knitting.  
b. Knitting, Swimming, Car racing and Flying a kite.  
c. Flying a kite, Knitting, Car racing and Swimming.  
d. Car racing, Flying a kite, Knitting and Swimming.

**Question(2) :Read this dialogue between Mum and her daughter Asma, then answer the questions below:**

**Mum:** Hello, Asma.

**Asma:** Hello Mum. What are you cooking for dinner today?

**Mum:** I am cooking Mansaf.

**Asma:** Ok, I want to tidy up my room, set up the table and wash the dishes.

**Mum:** Please, Set the spoons, forks, knives and dishes on the table.

**Asma:** Ok , What else Mum?

**Mum:** Turn on TV, there is a program about a traditional craft in Jordan.

**Asma:** Traditional craft! As what?

**Mum:** In Jordan , we have many things that are old such as : rugs, pots, jars, mosaics and vases. Jars are made of clay while mosaics are made of small colorful pieces of stones.

**Asma :** Well, what are spoons, knives and forks made of?

**Mum:** Ok , let's watch the program, it might answer your question.

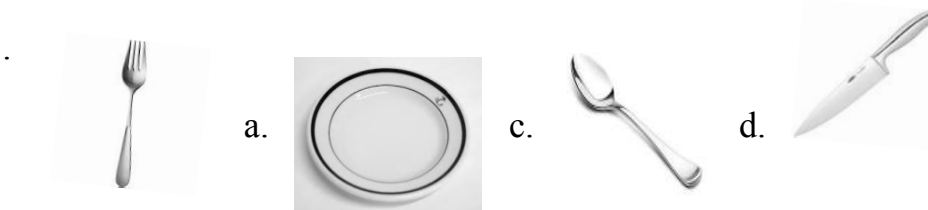
-----  
**16. The best title for this dialogue is:**

- a. Traditional craft    b. Mansaf    c. Setting the table    d. mosaics

**17. The correct plural form of the underlined word “ There is a knife on the table” is:**

- a. knives                      b. knive                      c. knives                      d. knife

**18. If you want to draw a fork, which one would you choose?**



**19. The definition of the word ..... is: "a picture or decoration usually made of small colored pieces of inlaid, stone, glass".**

- a. Spoon                      b. Mosaic                      c. Mobile                      d. Kite

**20. The most suitable suffix in the text is :**

- a. colorful                      b. color                      c. colors                      d. colorless

**21. This is a picture of.....**

- a. It is a jar, it's made of wood.      b. It is a jar, it's made of glass.
- c. It is a jar, it's made of clay.      d. It is a jar, it's made of wool.

**22.' I will tidy up my room'. "Tidy up" means:**



- a. full of rubbish      b. ugly      c. dirty      d. to make neat/ clean

**23. " What are you cooking"? the underlined verb is:**

- a. A Sport      b. An activity      c. Playing      d. Writing

**24. Which is the correct underlined stressed syllable in "Setting up the table"?**

- a. Setting `up      b. Setting up      c. Setti`ng up      d. Setting u`p

**25. This spoon is made of.....:**



- a. Metal      b. wool  
c. silk      d. stone

### Answer sheet

NO. Q	A	B	C	D
1	X			
2	X			
3			X	
4		X		
5			X	
6			X	
7	X			
8		X		
9				X
10			X	
11		X		
12			X	
13		X		
14	X			
15				X
16	X			
17			X	
18	X			
19		X		
20	X			
21			C	
22				X
23		X		
24	X			
25	X			

**Appendix(VIII)**  
**Wiki`s Guide for users**

### Steps for creating a wiki using Wiki spaces:

1. Go to the [Wikispaces home page](#).
2. Fill out the form that appears on this page. In the space for creating a name for your space, I recommend you create an initial page that is the same as your username (because then it's easy to remember!). For example, if your wiki space username is *jdoe* --> then name your space *jdoe* (enter *jdoe* the space name box). This means that your first wiki name will be *jdoe.wikispaces.com*
3. Write down your username name, your password, and your space name in a place where you won't lose it (e.g. you can email it to yourself -- and then save the email!)
4. Click the "join" button  
Immediately your wiki is created and is ready to use. Initially there is a bunch of stuff on your wiki, including directions on how to get started, information about your space (and about how to change who can edit pages), and a link to the help documents. It's a good idea for you to explore these options before you go any further.
5. Once you are ready to add your own content to your wiki, click on the "edit this page" tab. This opens an editing window that looks much like a word processor.
6. Highlight and then delete the words, "Type in the content of your new page here." Then type your own heading for your page. Since it's the page heading, it's a good idea to select "Heading 1" from the drop down menu that is set at the default "normal."
7. Hit return/enter, and add text to the next line -- and keep going, using the tool bar to format your page contents (see more detail below under editing your wiki).
8. Once you are done, click on the "Save" button and your page is uploaded.

### Changing wiki settings

Click on the "settings" tab. In the window that appears:

1. Enter your name or the name you want to be known by when you are using your wiki (if you want to -- but you do not need to).
2. Select your time zone from the drop down menu
3. I recommend that you select "yes" next to the "Email responses" item. This is useful because you will be notified any time anyone edits your wiki, so that you know to go and take a look. This way, if you don't

receive any emails, then you don't need to keep visiting your wiki just to see if anyone has edited it!

4. You can also select "yes" to be notified any time there are changes to your other favorite wiki pages.
5. Unless you want Wiki spaces to email you (I recommend not!), select "no" next to email site news.
6. You can also change your password on this setting page.
7. For now, don't worry about blog integration.
8. Click the "save" button.
9. To return to you wiki space, click on link to your space on the left of your wiki, under the heading, "My spaces."

### **Managing your space**

To manage the "behind the scenes" aspects of your wiki, click on the "manage space" link (next to a picture of a wheel) on the left of your wiki. This takes you to a page with links that enable you to do a number of different things, the key ones described here:

### **Make changes to who can edit your wiki**

When you wiki is created, it defaults to the protected setting that allows only people who have a Wiki space account to edit your page. When anyone who is not a member tried to edit your page, they will be notified that you first have to approve them as a member. This way, any time anyone edits your wiki, you will know who they are (or at least their wiki identity). In order to have your wiki be editable only by a select (private) group, as well as to have your page be advertising free, you need to upgrade from a free account. For most users this isn't necessary, but you may want to consider this if you want to use your wiki for business that you do not want the public to see (e.g. K-12 teachers may want to use this option, and pay \$5 a month).

If you want to change the default settings to allow anyone to edit your wiki:

1. Click on the "members and permissions" link.
2. Under the column "Public" click on the green "select" button.
3. If at a later date you wish to change your page back to the protected setting, then you can switch back by again checking this green button.
4. Click on the "manage space" link to the left of your page to continue managing your space.

There is no need to change any of the other defaults on your wiki. However, once you become more comfortable with the basic features, you can return to the "Manage your space" page to change other features. When you are ready to learn more, go to the [Wikispaces Help page](#).

### **Uploading a Word document or other type of files (such as audio files) to your wiki:**

1. Click on "edit this page"
2. Click on the icon on the toolbar to embed widget (it's the one with the picture of the TV)
  - This will open a screen that allows you to choose the category of application you would like to embed from the list provided. e.g. video, slide show, audio, calendar, IM, polls.
  - Once you select the application, follow the onscreen directions.
3. To add an image, click on the icon on the toolbar to add an image (it's the one with the picture of the tree)
  - This will open an images and files window that invites you to upload a new file. Click on the browse button and navigate on your computer to where you have the Word file (or any other kind of file -- image, word processed file, sound, or video).
  - Once you have selected the file, click on the upload file button
  - Once the file has been uploaded, then in the images and files window, double click on the file icon. This will insert the name of the file on your wiki nested inside double square brackets.
4. Click on the wiki "save" button to save your edits. The file that you uploaded should appear as a link.

### **To make a new wiki page**

1. All you need to do to make a new
2. wiki page once you have created your initial one is to click on the "new page" link on the left of your wiki
3. In the box that appears, enter the name of your new wiki, and then click "create."
4. Write down and also bookmark the URL of your new wiki
5. Begin editing!
- 6.

Helen, M. (2008). **Creating and using a Wiki with Wiki spaces**. The Education Department at the University of Minnesota Duluth

<http://www.duluth.umn.edu/~hrallis/guides/wiki/wikispaceguide.html> .

(Retrieved on 20<sup>th</sup>, March, 2016)

**Appendix(IX)**  
**List of jury**

<b>N</b>	<b>Name</b>	<b>Educational level&amp; specialization</b>	<b>Workplace</b>
<b>1</b>	<b>Prof/Dr Zeid Ad l-Bashaireh</b>	<b>Ph. D Science Education Method</b>	<b>Mu`tah University</b>
<b>2</b>	<b>Prof/Dr Majed Khataybeh</b>	<b>Ph. D English language Teaching Method</b>	<b>Mu`tah University</b>
<b>3</b>	<b>Dr Hassan Bani-Domy</b>	<b>Ph. D Educational Technology</b>	<b>Mu`tah University</b>
<b>4</b>	<b>Dr Mohammad Al-Sarayreh</b>	<b>Ph. D Applied Linguistics</b>	<b>AL-Balq`a Applied University</b>
<b>5</b>	<b>Dr Somaya Nawaiseh</b>	<b>Ph. D Educational Technology</b>	<b>Southern AL-Mazar Education Directorate.</b>
<b>6</b>	<b>Zainb Hallalmeh</b>	<b>Master degree in IT</b>	<b>Southern AL-Mazar Education Directorate.</b>
<b>7</b>	<b>Rab`ah Al- Edi</b>	<b>Master degree in English language teaching method</b>	<b>Southern AL-Mazar Education Directorate.</b>
<b>8</b>	<b>Nizar AL- Sbo`u</b>	<b>Master degree in English language teaching method</b>	<b>Southern AL-Mazar Education Directorate.</b>
<b>9</b>	<b>Hisham Al-Bostanjy</b>	<b>Master's degree in English language teaching method</b>	<b>Southern AL-Mazar Education Directorate.</b>
<b>10</b>	<b>Nesreen Jaffre`h</b>	<b>Master degree in English language teaching method</b>	<b>Southern AL-Mazar Education Directorate.</b>
<b>11</b>	<b>Baker AL-Tarawneh</b>	<b>Master degree in Applied Linguistic</b>	<b>Taibuh University</b>
<b>12</b>	<b>Rukaya Mahadeen</b>	<b>Master degree in English</b>	<b>Al-Karak</b>



		<b>language teaching method</b>	<b>Education Directorate</b>
<b>13</b>	<b>Raed Sarayreh</b>	<b>Master degree in Educational Technology</b>	<b>Mu`tah University</b>
<b>14</b>	<b>Etaf Btoush</b>	<b>BA English language and High Diploma</b>	<b>Fourth- Amman Education Directorate</b>
<b>15</b>	<b>Mnar Tarawneh</b>	<b>BA English language</b>	<b>Southern AL- Mazar Education Directorate.</b>
<b>16</b>	<b>Mohammad Btoush</b>	<b>BA English language</b>	<b>Southern AL- Mazar Education Directorate.</b>
<b>17</b>	<b>Alaa AL- Banawi</b>	<b>Master degree in Methodology and Evaluation</b>	<b>Al-karak Education Directorate</b>